Service
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Second Generation

Service Manual

KARAOKE DVD VIDEO DivX ULTRA DOLBY DIGITAL PRO LOGIC II ENERGY STAR

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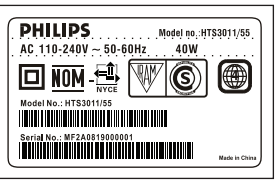
This service manual is for HTS3011/55 Second Generation model, which is different from the previous generation HTS3011/55 models.

For Second Generation model the serial number begin with MF2AXXXXXXXXXX. Refer to the rating label illustration at right.



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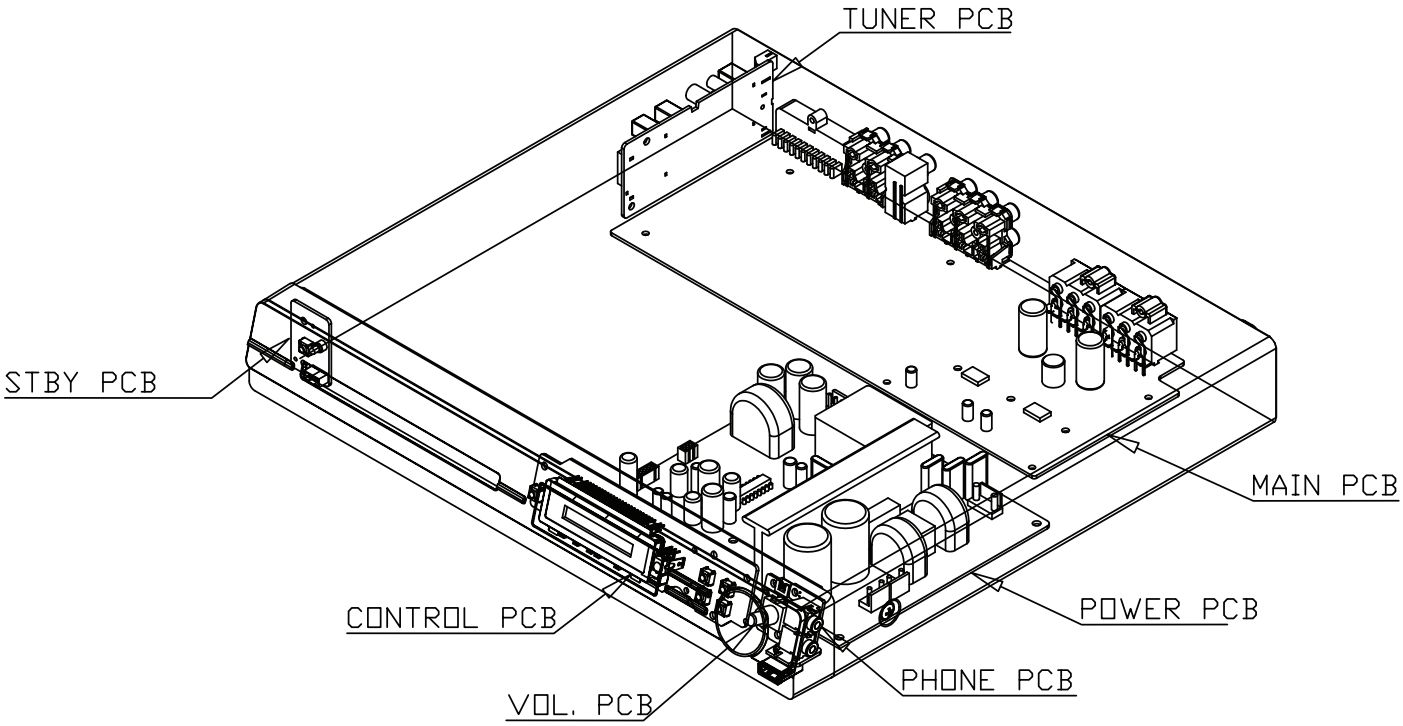
Version 1.0

PHILIPS

LOCATION OF PCB BOARDS



VERSION VARIATION:

Type/Versions / Features	HTS3011 /55
Output Power - 200W	X
Voltage (110V~240V)	X
Aux In	X

SERVICE SCNARIO MATRIX:

Type/Versions / Board in used	HTS3011 /55
Main Board	C
Power Board	C
VFD+STANDBY+VOL+MP3+BRACKETBoard	C

*C = Component Level Repair

SPECIFICATIONS

AMPLIFIER

Total output power :
- Home Theatre mode ..... 200 W

Frequency Response ..... 180 Hz – 18 kHz / ±3 dB
Signal-to-Noise Ratio..... > 60 dB (A-weighted)
Input Sensitivity
- AUX 1 ..... 400 mV
- AUX 2 ..... 400 mV

RADIO

Tuning Range ..... FM 87.5–108 MHz
..... (50/100 kHz)
..... AM/MW 530-1700 kHz
..... (10 kHz);
..... 531-1602 kHz (9kHz)
..... 26 dB Quieting
Sensitivity ..... FM 22 dBf,
..... AM/MW 5000µV/m
IF Rejection Ratio ..... FM 60 dB, AM/MW 24 dB
Signal-to-Noise Ratio..... FM 50 dB, AM/MW 30 dB
..... AM/MW
Suppression Ratio ..... FM 30 dB
Harmonic Distortion ..... FM Mono 3%
..... FM Stereo 3%
Frequency Response ..... FM 180 Hz–10 kHz / ±6 dB
Stereo Separation..... FM 26 dB (1 kHz)
Stereo Threshold ..... FM 29 dB

DISC

Laser Type..... Semiconductor
Disc Diametre ..... 12cm / 8cm
Video Decoding ..... MPEG-1 / MPEG-2 /
..... / DivX 3/4/5/6, Ultra
Video DAC..... 12 Bits
Signal System..... PAL / NTSC
Video Format ..... 4:3 / 16:9
Video S/N ..... 56 dB
Composite Video
Output..... 1.0 Vp-p, 75Ω
Frequency Response ..... 4 Hz–20 kHz (44.1 kHz)
..... 4 Hz–22 kHz (48 kHz)
..... 4 Hz–44 kHz (96 kHz)
PCM..... IEC 60958
Dolby Digital ..... IEC 60958, IEC 61937

MAIN UNIT

Power Supply Rating ..... 110-240 V; 50-60 Hz
Power Consumption ..... 40 W
Dimensions..... 360 x 55 x 332 (mm)
..... (w x h x d)
Weight ..... 2.58 kg

FRONT AND REAR SPEAKERS

System..... Full range satellite
Impedance..... 4 Ω
Speaker drivers ..... 3” full range speaker
Frequency response..... 150 Hz – 20 kHz
Dimensions..... 100 x 95.5 x 83.5 (mm)
..... (w x h x d)
Weight ..... 0.47 kg/each

CENTRE SPEAKER

System..... Full range satellite
Impedance..... 8 Ω
Speaker drivers ..... 3” full range speaker
Frequency response..... 150 Hz – 20 kHz
Dimensions..... 100 x 95.5 x 83.5 (mm)
..... (w x h x d)
Weight ..... 0.52 kg

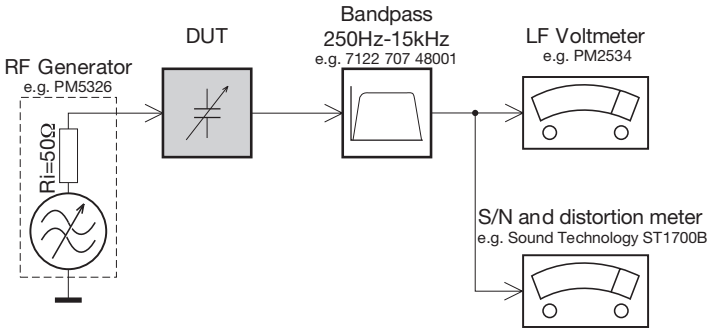
SUBWOOFER

Impedance..... 8 Ω
Speaker drivers ..... 203 mm (8”) woofer
Frequency response..... 40 Hz – 150 Hz
Dimensions..... 131 x 315.5 x 386 (mm)
..... (w x h x d)
Weight ..... 3.6 kg

Specifications subject to change without prior notice.

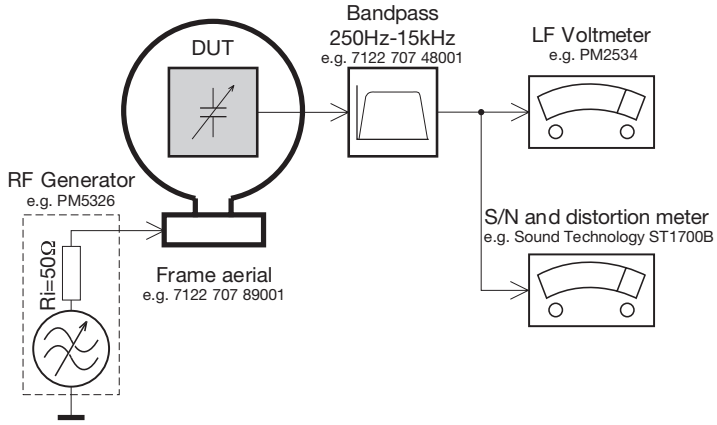
MEASURE MENT STETUP

Tuner FM



Use a bandpass filter to eliminate hum (50Hz, 100Hz) and disturbance from the pilottone (19kHz, 38kHz).

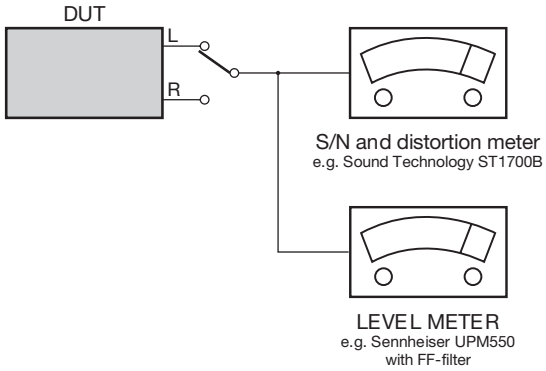
Tuner AM (MW,LW)



To avoid atmospheric interference all AM-measurements have to be carried out in a Faraday´s cage.
Use a bandpass filter (or at least a high pass filter with 250Hz) to eliminate hum (50Hz, 100Hz).

CD

Use Audio Signal Disc SBC429 4822 397 30184
(replaces test disc 3)



SERVICE AIDS

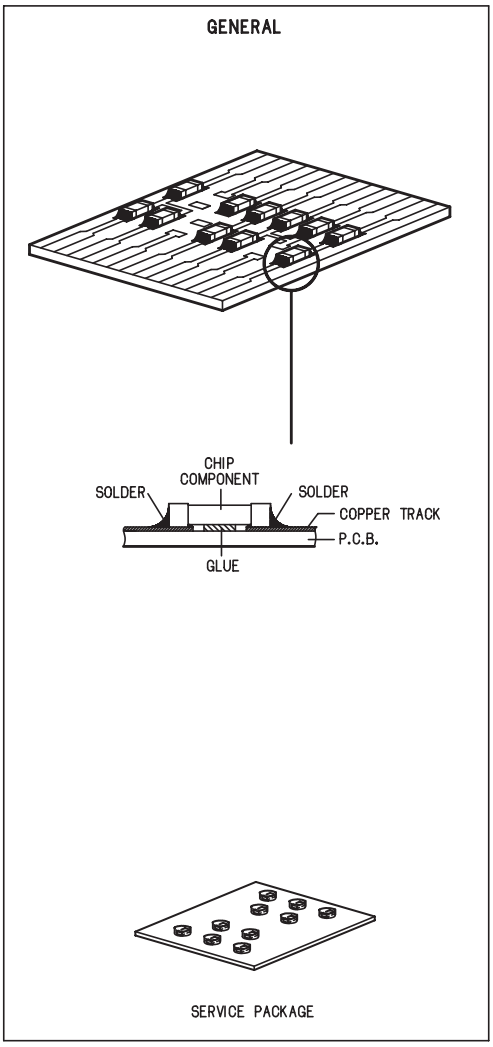
Service Tools:

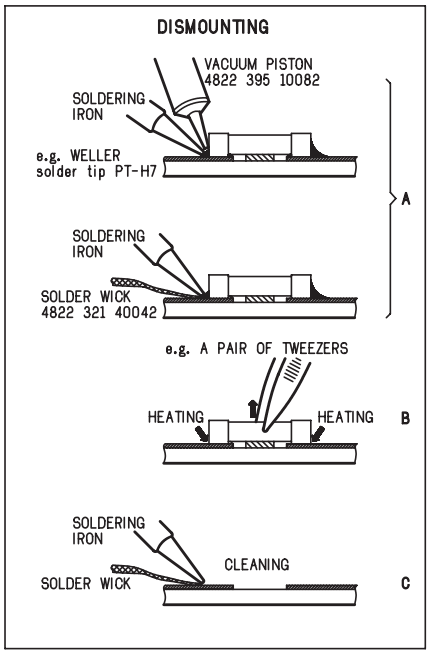
Universal Torx driver holder 4822 395 91019
Torx bit T10 150mm 4822 395 50456
Torx driver set T6-T20 .....4822 395 50145
Torx driver T10 extended 4822 395 50423

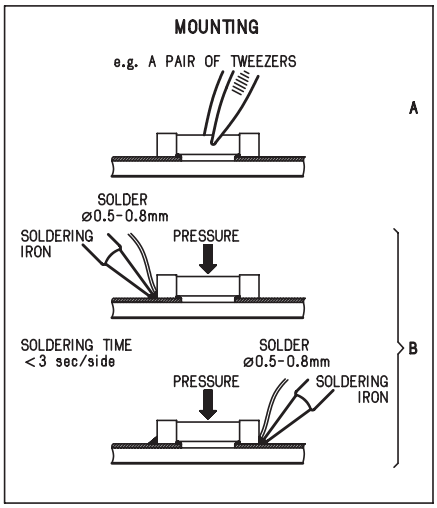
Compact Disc:

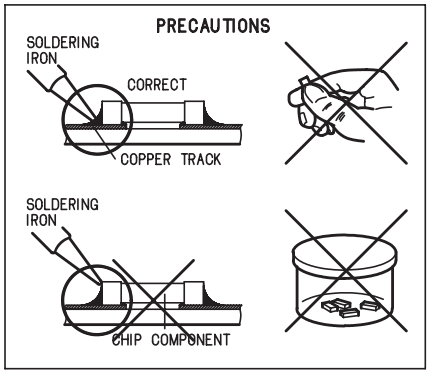
SBC426/426A Test disc 5 + 5A 4822 397 30096
SBC442 Audio Burn-in test disc 1kHz 4822 397 30155
SBC429 Audio Signals disc 4822 397 30184
Dolby Pro-logic Test Disc 4822 395 10216

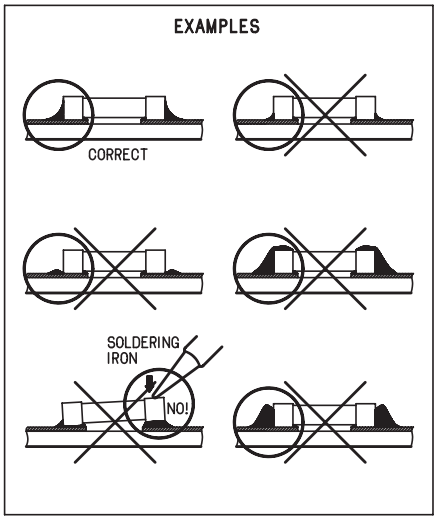
HANDLING CHIP COMPONENTS











ESD

(GB) WARNING

All ICs and many other semi-conductors are susceptible to electrostatic discharges (ESD). Careless handling during repair can reduce life drastically.
When repairing, make sure that you are connected with the same potential as the mass of the set via a wrist wrap with resistance.
Keep components and tools also at this potential.

(NL) WAARSCHUWING

Alle IC's en vele andere halfgeleiders zijn gevoelig voor electrostatische ontladingen (ESD).
Onzorgvuldig behandelen tijdens reparatie kan de levensduur drastisch doen verminderen.
Zorg ervoor dat u tijdens reparatie via een polsband met weerstand verbonden bent met hetzelfde potentiaal als de massa van het apparaat.
Houd componenten en hulpmiddelen ook op ditzelfde potentiaal.

(F) ATTENTION

Tous les IC et beaucoup d'autres semi-conducteurs sont sensibles aux décharges statiques (ESD).
Leur longévité pourrait être considérablement écourtée par le fait qu'aucune précaution n'est prise à leur manipulation.
Lors de réparations, s'assurer de bien être relié au même potentiel que la masse de l'appareil et enfiler le bracelet serti d'une résistance de sécurité.
Veiller à ce que les composants ainsi que les outils que l'on utilise soient également à ce potentiel.

(D) WARNUNG

Alle ICs und viele andere Halbleiter sind empfindlich gegenüber elektrostatischen Entladungen (ESD).
Unsorgfältige Behandlung im Reparaturfall kan die Lebensdauer drastisch reduzieren.
Veranlassen Sie, dass Sie im Reparaturfall über ein Pulsarmband mit Widerstand verbunden sind mit dem gleichen Potential wie die Masse des Gerätes.
Bauteile und Hilfsmittel auch auf dieses gleiche Potential halten.

(I) AVVERTIMENTO

Tutti IC e parecchi semi-conduttori sono sensibili alle scariche statiche (ESD).
La loro longevità potrebbe essere fortemente ridatta in caso di non osservazione della più grande cauzione alla loro manipolazione.
Durante le riparazioni occorre quindi essere collegato allo stesso potenziale che quello della massa dell'apparecchio tramite un braccialetto a resistenza.
Assicurarsi che i componenti e anche gli utensili con quali si lavora siano anche a questo potenziale.

(GB) ESD PROTECTION EQUIPMENT

Complete Kit ESD3 (small tablemat, wristband, connection box, estention cable and earth cable 4822 310 10671
Wristband tester 4822 344 13999

(GB)

Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified, be used.

Safety components are marked by the symbol ⚠ .

(NL)

Veiligheidsbepalingen vereisen, dat het apparaat bij reparatie in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen, identiek aan de gespecificeerde, worden toegepast.

De Veiligheidsonderdelen zijn aangeduid met het symbol ⚠ .

(F)

Les normes de sécurité exigent que l'appareil soit remis à l'état d'origine et que soient utiliséés les piéces de rechange identiques à celles spécifiées.

Less composants de sécurité sont marqués ⚠ .

(D)

Bei jeder Reparatur sind die geltenden Sicherheitsvorschriften zu beachten. Der Original zustand des Geräts darf nicht verändert werden; für Reparaturen sind Original-Ersatzteile zu verwenden.

Sicherheitsbauteile sind durch das Symbol ⚠ markiert.

(I)

Le norme di sicurezza esigono che l'apparecchio venga rimesso nelle condizioni originali e che siano utilizzati i pezzi di ricambio identici a quelli specificati.

Componenty di sicurezza sono marcati con ⚠ .

(GB)

After servicing and before returning set to customer perform a leakage current measurement test from all exposed metal parts to earth ground to assure no shock hazard exist, The leakage current must not exceed 0.5mA.

(GB) Warning !

Invisible laser radiation when open.
Avoid direct exposure to beam.

(S) Varning !

Osynlig laserstrålning när apparaten är öppnad och spärren är urkopplad. Betrakta ej strålen.

(SF) Varoitus !

Avatussa laitteessa ja suojalukituksen ohitettaessa olet alttiina näkymättömälle laserisäteilylle. Älä katso säteeseen!

(DK) Advarse !

Usynlig laserstråling ved åbning når sikkerhedsafbrydere er ude af funktion. Undgå udsaettelse for stråling.

(F)

"Pour votre sécurité, ces documents doivent être utilisés par des spécialistes agréés, seuls habilités à réparer votre appareil en panne".

Pb(Lead) Free Solder

When soldering , be sure to use the pb free solder.

INDENTIFICATION:
Regardless of special logo (not always indicated)

one must treat all sets from **1 Jan 2005** onwards, according next rules:

Important note: In fact also products of year 2004 must be treated in this way as long as you avoid mixing solder-alloys (leaded/ lead-free). So best to always use SAC305 and the higher temperatures belong to this.

Due to lead-free technology some rules have to be respected by the workshop during a repair:

- Use only lead-free solder alloy Philips SAC305 with order code 0622 149 00106. If lead-free solder-paste is required, please contact the manufacturer of your solder-equipment. In general use of solder-paste within workshops should be avoided because paste is not easy to store and to handle.
- Use only adequate solder tools applicable for lead-free solder alloy. The solder tool must be able
  - To reach at least a solder-temperature of 400?C,
  - To stabilize the adjusted temperature at the solder-tip
  - To exchange solder-tips for different applications.
- Adjust your solder tool so that a temperature around 360?C – 380?C is reached and stabilized at the solder joint. Heating-time of the solder-joint should not exceed ~ 4 sec. Avoid temperatures above 400?C otherwise wear-out of tips will rise drastically and flux-fluid will be destroyed. To avoid wear-out of tips switch off un-used equipment, or reduce heat.
- Mix of lead-free solder alloy / parts with leaded solder alloy / parts is possible but PHILIPS recommends strongly to avoid mixed solder alloy types (leaded and lead-free).
  If one cannot avoid or does not know whether product is lead-free, clean carefully the solder-joint from old solder alloy and re-solder with new solder alloy (SAC305).
- Use only original spare-parts listed in the Service-Manuals. Not listed standard-material (commodities) has to be purchased at external companies.
- Special information for BGA-ICs:
- Always use the 12nc-recognizable soldering temperature profile of the specific BGA (for de-soldering always use the lead-free temperature profile, in case of doubt)
- Lead free BGA-ICs will be delivered in so-called 'dry-packaging' (sealed pack including a silica gel pack) to protect the IC against moisture. After opening, dependent of MSL-level seen on indicator-label in the bag, the BGA-IC possibly still has to be baked dry. (MSL=Moisture Sensitivity Level). This will be communicated via AYS-website.
  Do not re-use BGAs at all.
- For sets produced before 1.1.2005 (except products of 2004), containing leaded solder-alloy and components, all needed spare-parts will be available till the end of the service-period. For repair of such sets nothing changes.
- On our website **www.atyourservice.ce.Philips.com** you find more information to:

  - BGA-de-/soldering (+ baking instructions)
  - Heating-profiles of BGAs and other ICs used in Philips-sets

  You will find this and more technical information within the "magazine", chapter "workshop news".

  For additional questions please contact your local repair-helpdesk.

2 - 1

System , Region Code , etc. Setting Produre

1)System Reset

a) Press “OPTIONS“ button on R/C,TV will show setup menu
b) Select the menu using the▼ and ► on R/C
c) Go preference page to do system reset

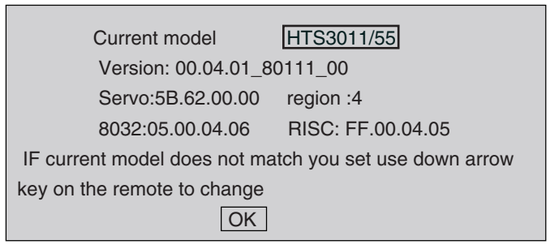
2)Region Code Change

a) In open model, press”9” “9“ “9“ “9“ on R/C,then input desired number to change region code :

1	USA
2	EU
3	AP
4	Australia ,NZ , Latam
5	Russia , INDIA
6	CHINA

3)Version Control Change

a) In open model, press “9“ “9“ “9“ “9“ on R/C
b) Press “ok” button to confirm
c) TV will show message as below:


Current model HTS3011/55
Version: 00.04.01_80111_00
Servo:5B.62.00.00 region :4
8032:05.00.04.06 RISC: FF.00.04.05
IF current model does not match you set use down arrow key on the remote to change
OK

4)Password Change

a) Press “OPTIONS “ button on R/C,TV will show setup menu
b) Select the menu using the▼ and ► on R/C
c) Go preference page select “password“ to change
* 000000 is default password supplied.

5)Check on the Sofeware Version

a) Open the CD Door
b) Press “INFO“ button on R/C
c) TV will show the version on screen

6)Trade model

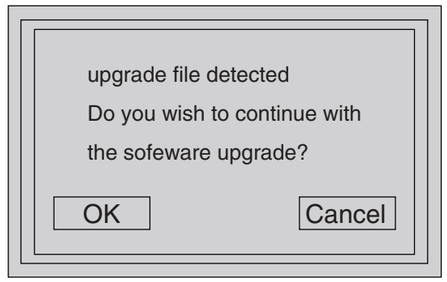
a) Press “Open/Close “ button on R/C
b) Press “2” “5” “9” on R/C,VFD will display “TRA ON “ or “TRA OFF“

6)Produce to Change Tuner Grid

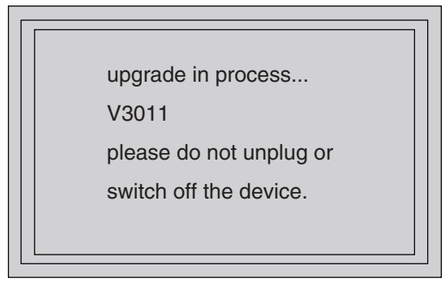
(only applicable for certain regions)
In some countries ,the frequency step between adjacent channels in the (AM/MW)/FM band is 9kHz/50kHz (10kHz/100kHz in some areas).
a) Press “source” to select “FM” or “AM”
b) In “FM” or “AM” playback mode, press & hold “play/pause” button until “Grid 9” or “Grid10” appears
note :repeating the same action will toggle back to it previous tuning grid setting.
* “grid 10” is default for /55/98/94 version, “grid 9” is default for /51 version and it doesn’s to change Tuner grid.

7) Upgrading new sofeware

a) Copy “sofeware files” into a CD-R
b) Open the CD Door,then insert the CD-R program disc
c) Close the CD Door
d) VFD will show:
“Loading“
“Erase” -- erase the flash memory
“Writing” about 1 minute
“done “
* the system will switch off and on again automatically.
e) OSD will show:



f) Select “OK”, OSD will show:

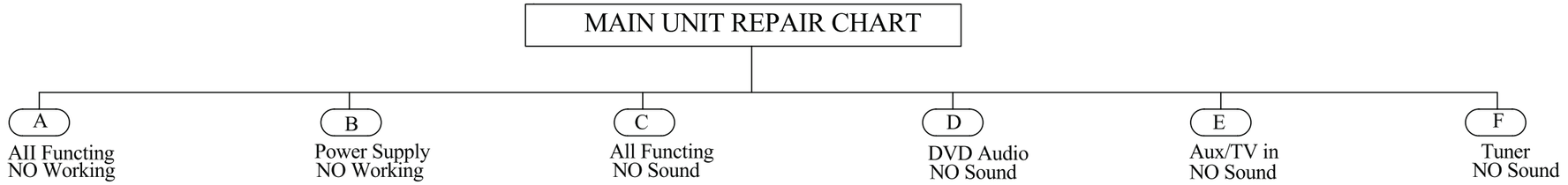


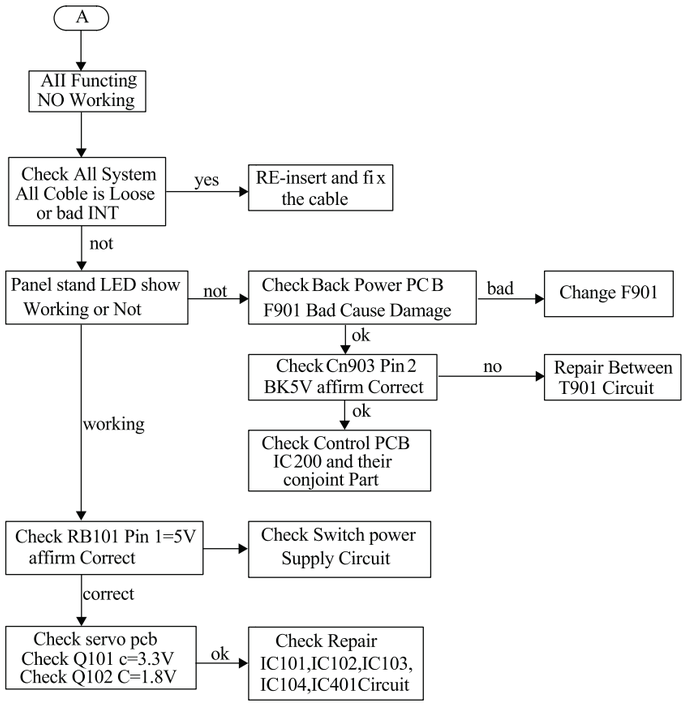
CAUTION!

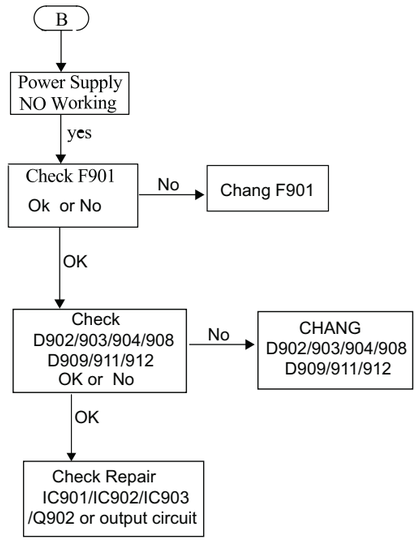
This information is confidential and may not be distributed.Only a qualified service person should reprogram the Region Code.

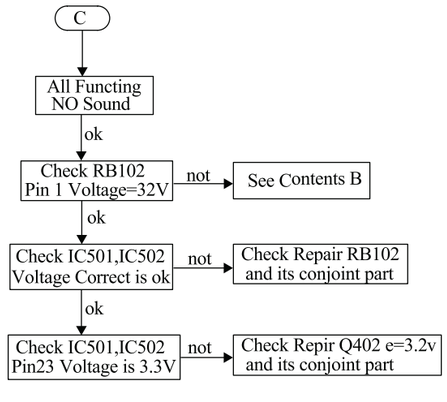
2 - 2

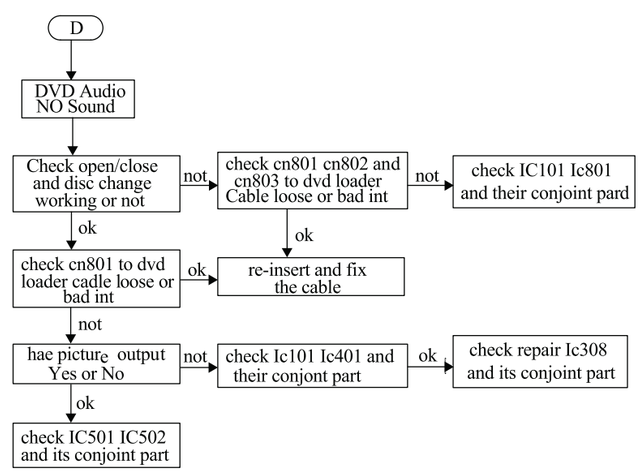
REPAIR INSTRUCTIONS

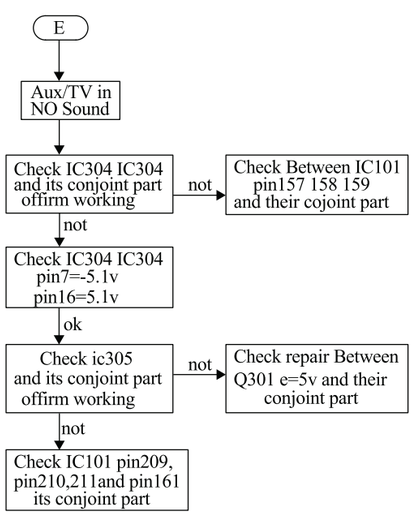


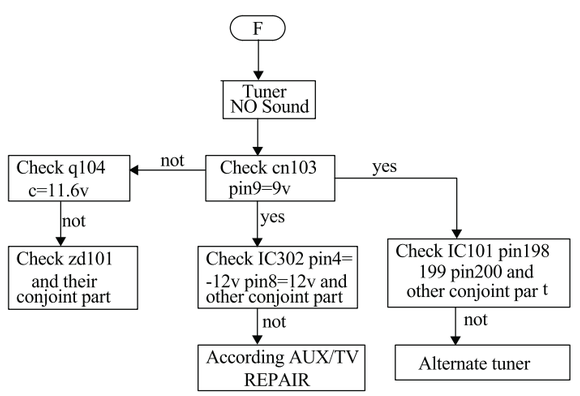












DISASSEMBLY INSTRUCTIONS

Dismantling of the Front Panel Assemble

1) Open the DVD Tray by using the Open/Close Button while the Set is ON and disconnect the mains supply after removing the Tray Cover.
   Note: If this is not possible, the DVD Tray has to be open manually.
   Take a mini screw driver about 2mm diameter and make a marking 24mm from the tip as shown in figure 2 . Place the set on its side, insert the mini screw driver till the marking and slide it towards the left as shown in figure 1 until the Tray moves out of the Front Panel.
2) Return the set to its upright position and remove the Tray Cover as shown in Figure 3 and close the tray manually by pushing it back in.

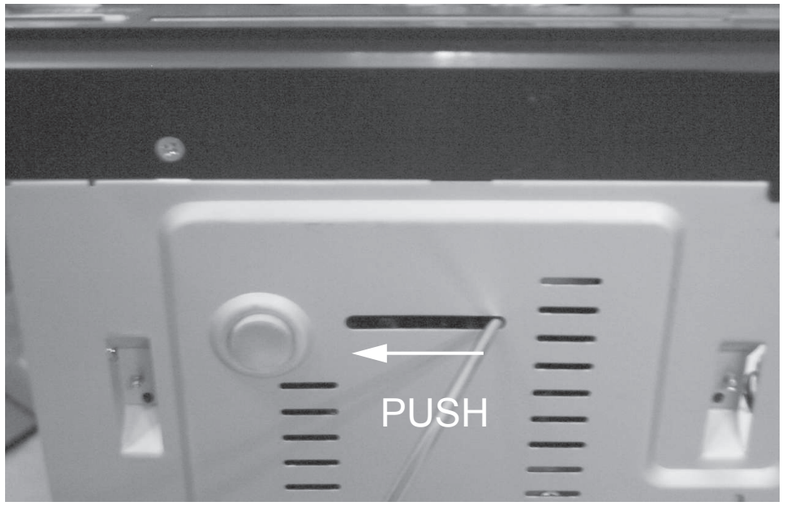


Figure 1

Figure 2

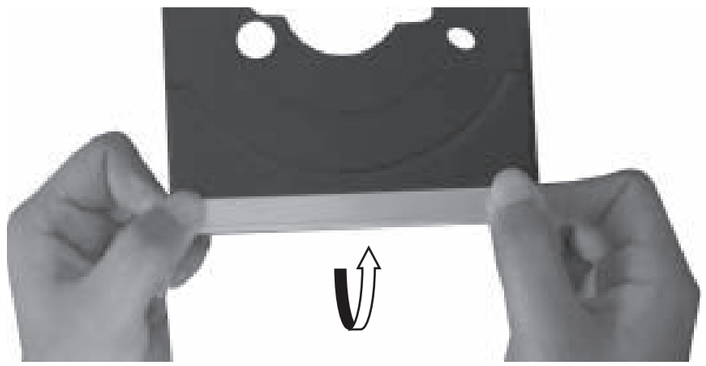


Figure 3

3 - 1

3) Loosen 5 screws and remove the Top Cover by lifting the rear portion upwards before sliding it out towards the rear.
   - 1 screw “A” each on the left & right side as shown in figure 4.
   - 3 screws “B” at the back panel as shown in figure 5.
4) Loosen 6 screws “C“ & “D” at the bottom panel as in figure 6 & figure 7 to remove the front panel.

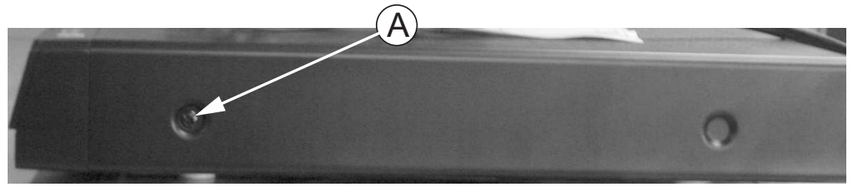


Figure 4

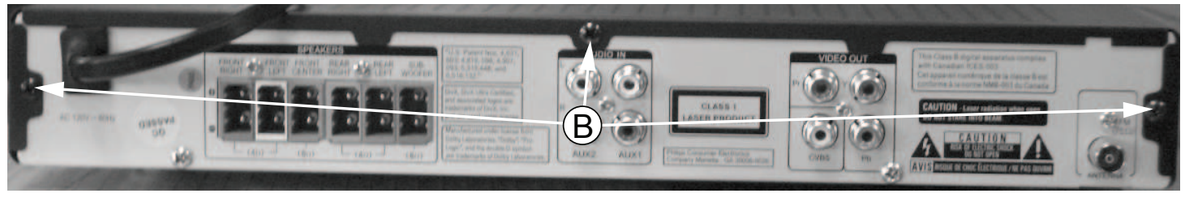


Figure 5

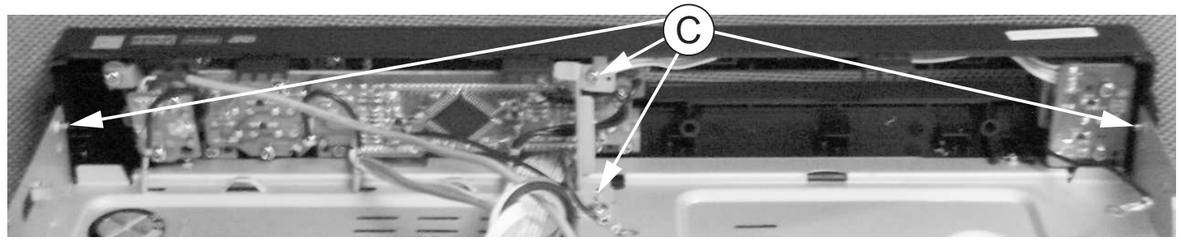


Figure 6

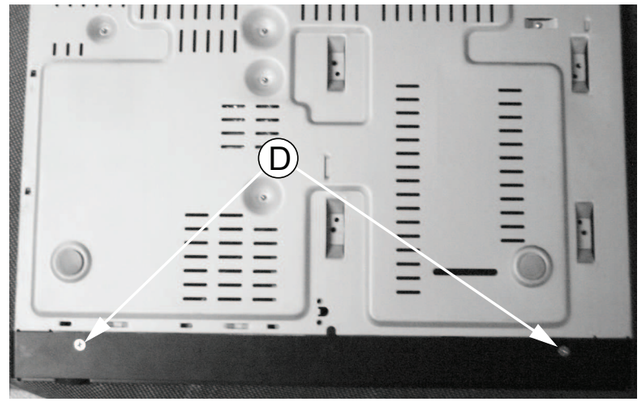


Figure 7

Dismantling of the DVD Module

1) Loosen 4 screws " E " at the DVD Module as shown in figure 8.

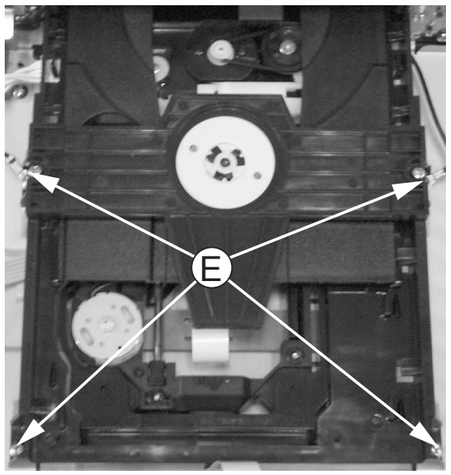


Figure 8

Dismantling of the VFD+JACK+STANDBY Board

1) Loosen 12 screws "F" on the top of VFD+JACK+STANDBY Board as shown in figure 9.

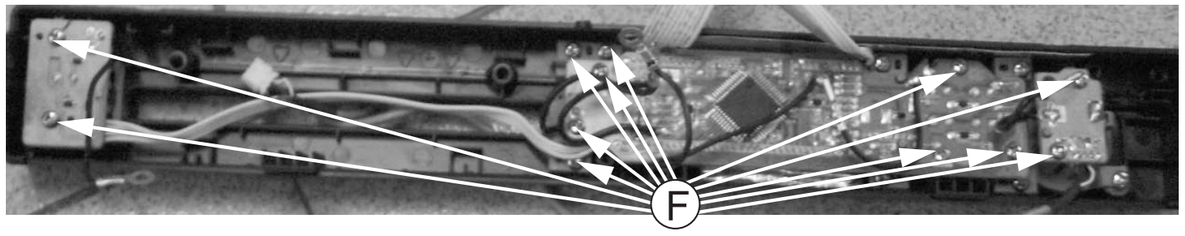


Figure 9

Dismantling of the Power Board

1) Loosen 4 screws "G" on the top of Power Board as shown in figure 10.

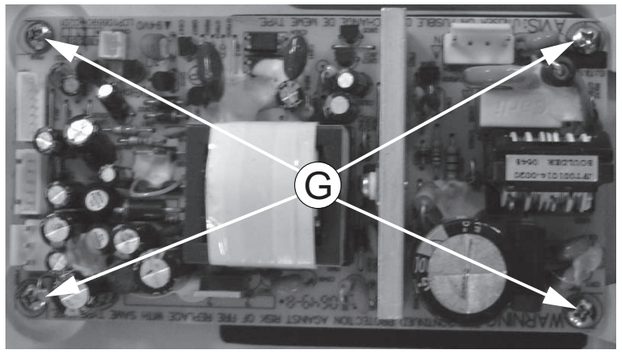


Figure 10

3 - 2

Dismantling of the Main Board

1) Loosen 4 screws "H" on the top of Main Board as shown in figure 11.
2) Loosen 4 screws "I" at the back panel as shown in figure 12.

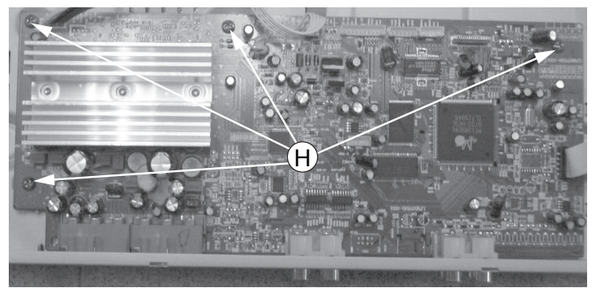


Figure 11

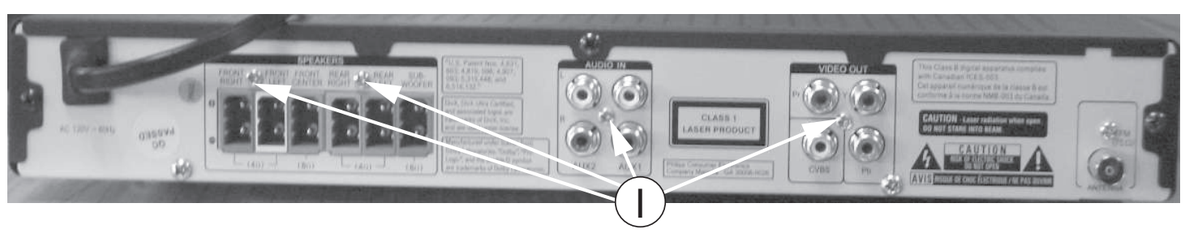
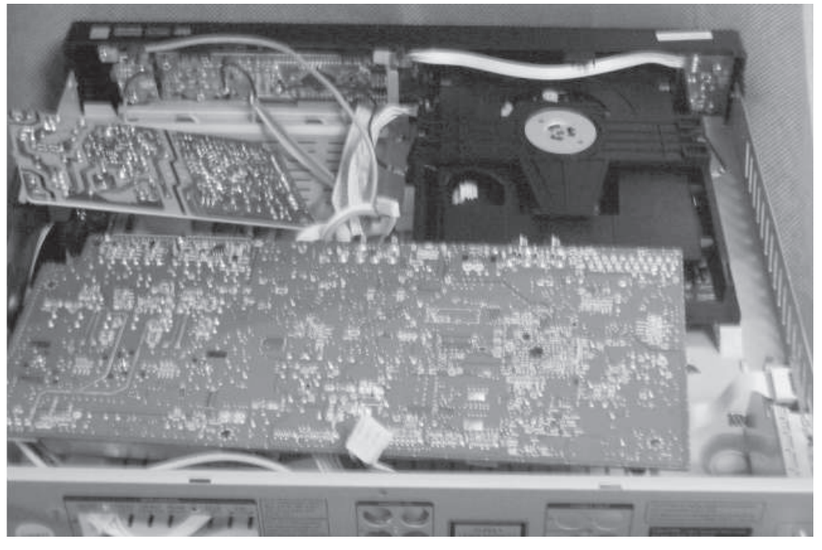


Figure 12

SERVICE POSITIONS

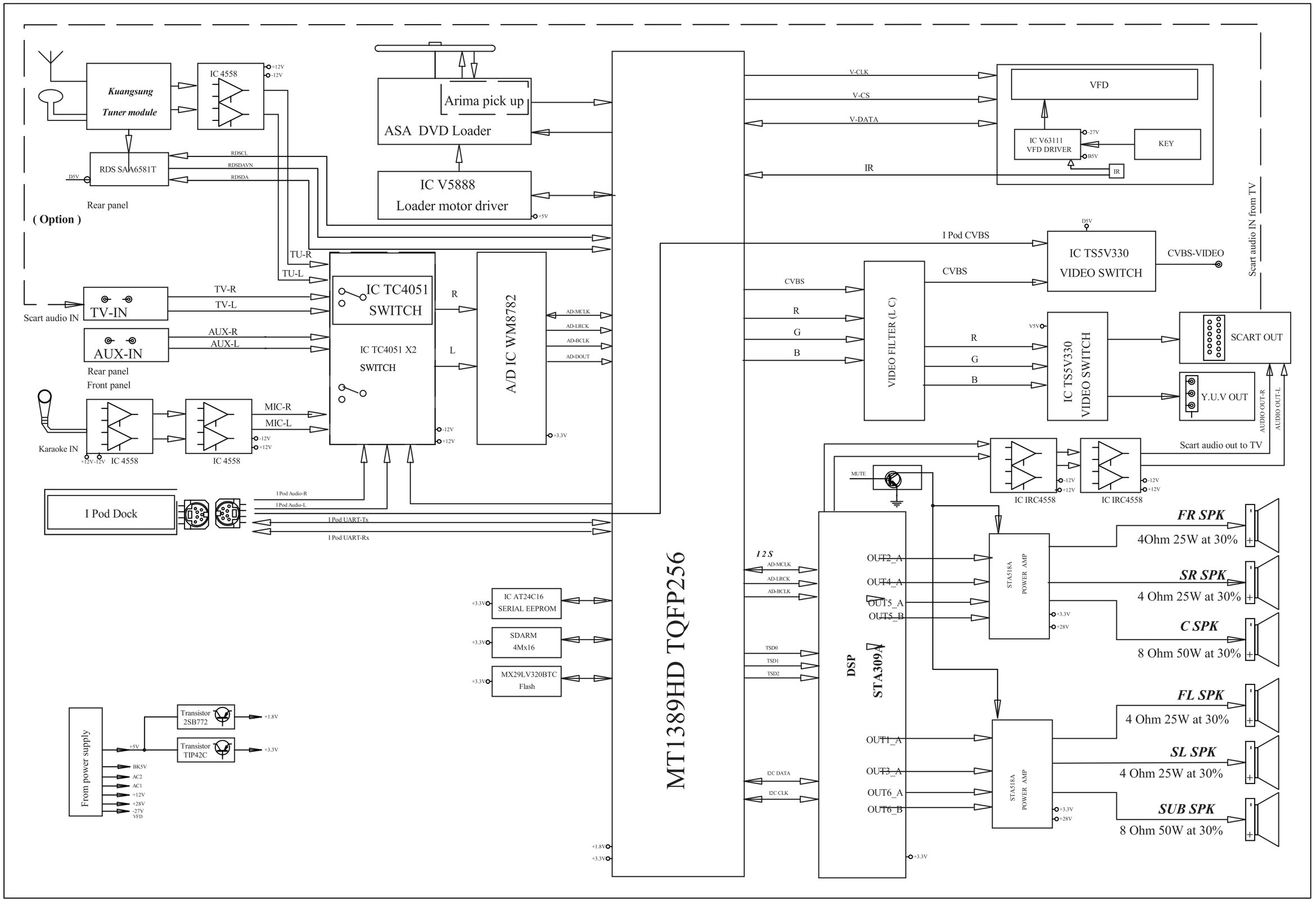
Service position A



Note:In some service positions the components or copper patterns of one board may risk touching its neighbouring pc boards or metallic parts. To prevent such short-circuit use a piece of hard paper or other insulating material between them.

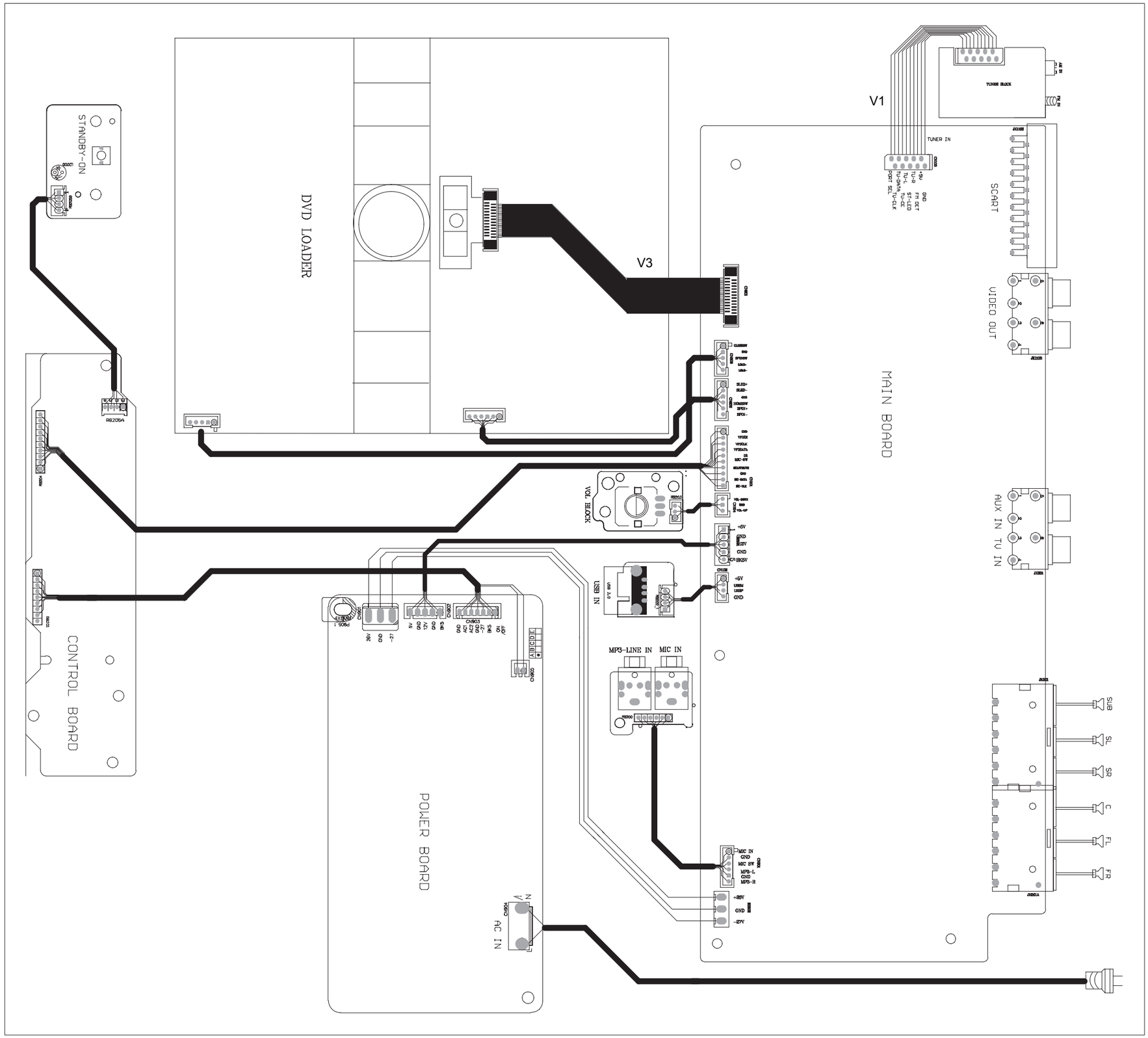
4 - 1

BLOCK DIAGRAM



4 - 2

WIRING DIAGRAM



CONTROL BOARD

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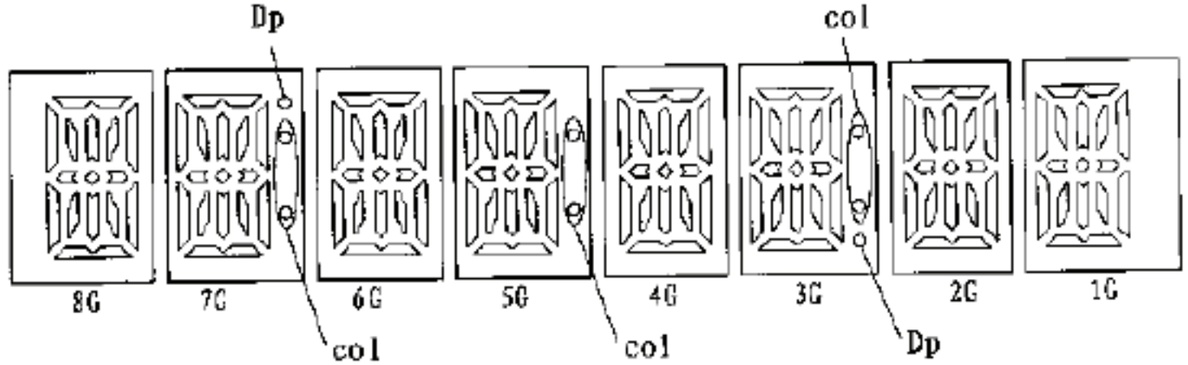
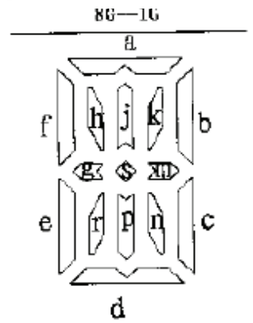
FTD DISPLAY PIN ASSIGNMENT





	8G	7G	6G	5G	4G	3G	2G	1G
P1	a	a	a	a	a	a	a	a
P2	j, p	j, p	j, p	j, p	j, p	j, p	j, p	j, p
P3	h	h	h	h	h	h	h	h
P4	k	k	k	k	k	k	k	k
P5	b	b	b	b	b	b	b	b
P6	f	f	f	f	f	f	f	f
P7	m	m	m	m	m	m	m	m
P8	g	g	g	g	g	g	g	g
P9	c	c	c	c	c	c	c	c
P10	e	e	e	e	e	e	e	e
P11	r	r	r	r	r	r	r	r
P12	n	n	n	n	n	n	n	n
P13	d	d	d	d	d	d	d	d
P14		Dp		col		col		
P15	s	s	s	s	s	s	s	s
P16		col				Dp		

PIN CONNECTION

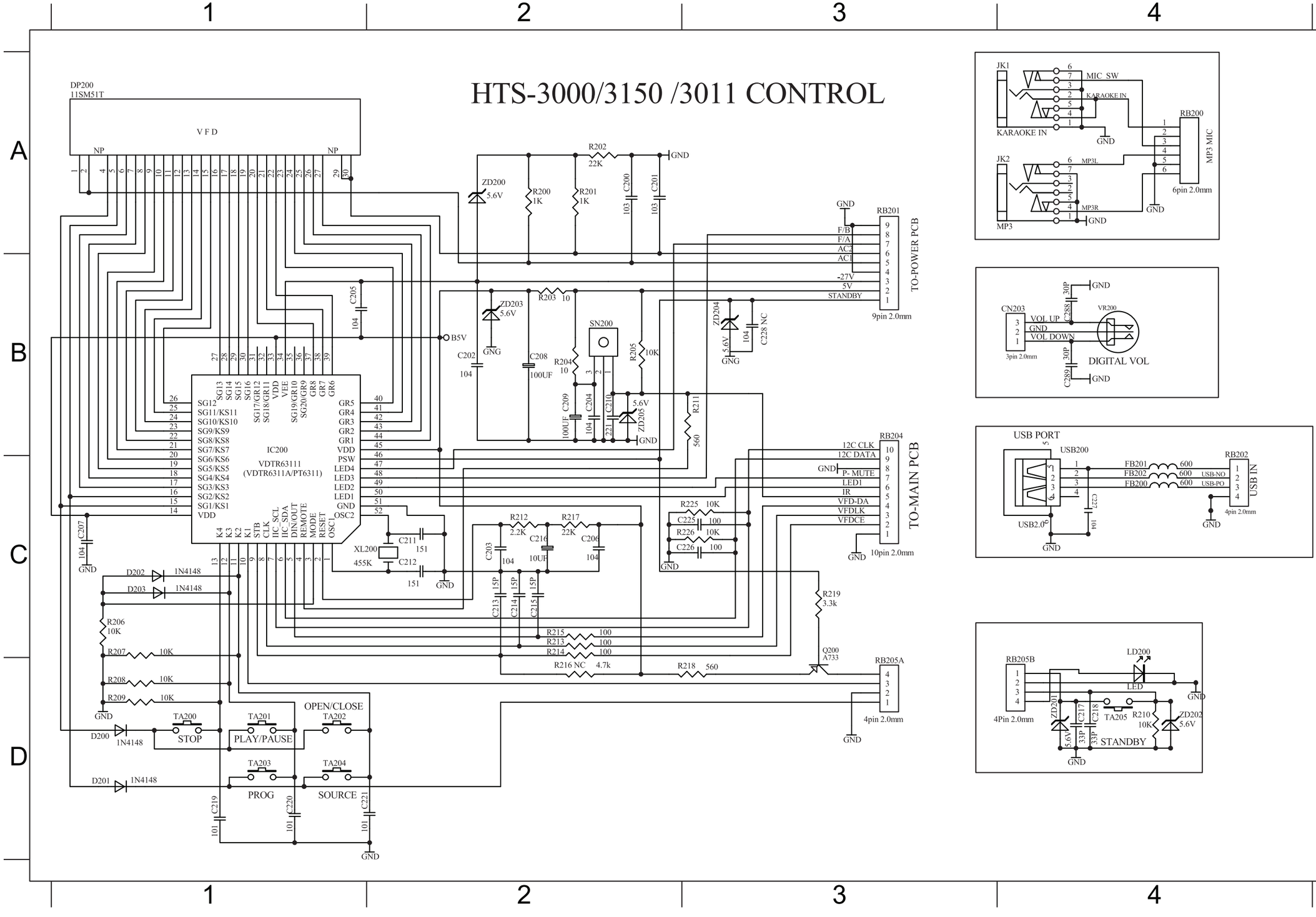
管脚序号（Pin No.）	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
連接（Connection）	F1	F1	NP	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12
管脚序号（Pin No.）	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
連接（Connection）	P13	P14	P15	P16	8G	7G	6G	5G	4G	3G	2G	1G	NP	F2	F2

注（Note）：Fn：燈絲（Filament Pin） nG：柵極（Grid Pin）
Fn：陽極（Anode Pin） NP：無引出腳（No Pin）

5 - 2

CIRCUIT DIAGRAM

HTS-3000/3150 /3011 CONTROL

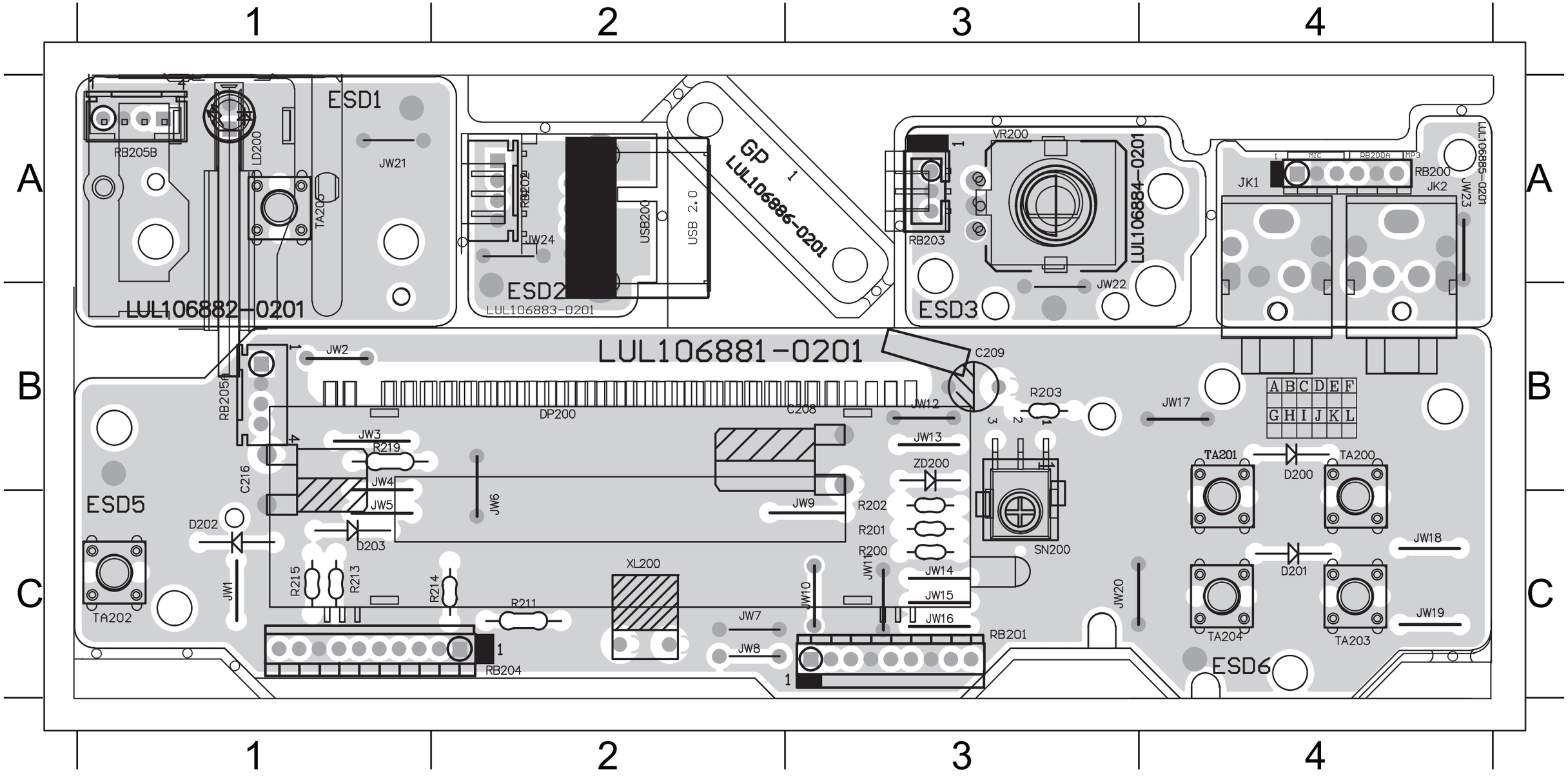


C200	A2	R202	A2
C201	A2	R203	B2
C202	B2	R204	B2
C203	C2	R205	B2
C204	B2	R206	C1
C205	B1	R207	C1
C206	C2	R208	D1
C207	C1	R209	D1
C208	B2	R210	D4
C209	B2	R211	B3
C210	B2	R212	C2
C211	C2	R213	C2
C212	C2	R214	C2
C213	C2	R215	C2
C214	C2	R217	C2
C215	C2	R218	D2
C216	C2	R219	C3
C217	D4	R225	C3
C218	D4	R226	C2
C219	D1	RB200A	D4
C220	D1	RB201	A3
C221	D1	RB204	B3
C225	C2	SN200	B2
C226	C2	TA200	D1
C288	B4	TA201	D1
C289	B4	TA202	D1
D200	D1	TA203	D1
D201	D1	TA204	D1
D202	C1	TA205	D4
D203	C1	VR200	B4
DP200	A1	XL200	C1
IC200	B1	ZD200	A2
JK1	A4	ZD201	D4
LD200	D4	ZD202	D4
Q200	C3	ZD203	B2
R200	A2	ZD204	B3
R201	A2	ZD205	B2

5 - 3

PCB LAYOUT - TOP VIEW

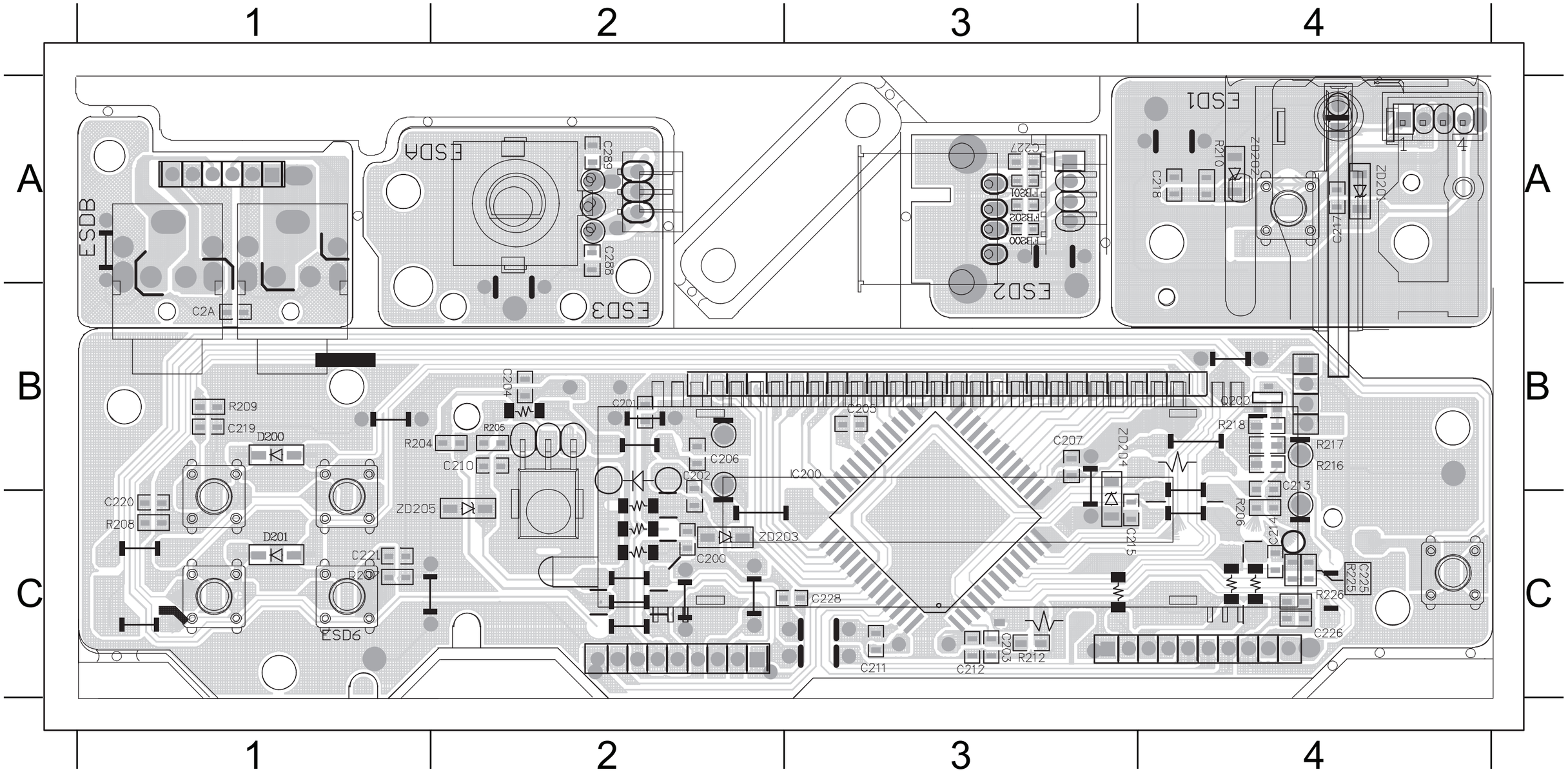
C208	B3	D203	C1	JW10	C3	JW15	C3	JW19	C4	JW22	B3	JW5	C1	JW9	C3	R202	C3	R214	C2	RB201	C3	TA201	B4	TA205	A1
C209	B3	DP200	B2	JW12	B3	JW16	C3	JW2	B1	JW23	A4	JW6	C2	LD200	A1	R203	B3	R215	C1	RB204	C2	TA202	C1	VR200	A3
C216	B1	JK1	A4	JW13	B3	JW17	B4	JW20	C3	JW3	B1	JW7	C2	R200	C3	R211	C2	R219	B1	SN200	C3	TA203	C4	XL200	C2
D202	C1	JW1	C3	JW14	C3	JW18	C4	JW21	A1	JW4	B1	JW8	C2	R201	C3	R213	C1	RB200A	A4	TA200	B4	TA204	C4	ZD200	B3



5 - 4

PCB LAYOUT - BOTTOM VIEW

C200	C2	C204	C4	C210	B2	C214	C4	C219	B1	C226	C4	D201	C1	R205	B2	R209	B1	R218	A4	ZD202	A4
C201	B2	C205	B2	C211	C3	C215	C3	C220	C1	C288	A2	IC200	B3	R206	C4	R210	A4	R225	C4	ZD203	C2
C202	B2	C206	B2	C212	C3	C217	A4	C221	C1	C289	A2	Q200	B4	R207	C1	R212	C3	R226	C4	ZD204	B2
C203	C3	C207	B2	C213	A4	C218	A4	C225	C4	D200	B1	R204	B1	R208	C1	R217	A4	ZD201	A4	ZD205	C1



MAIN BOARD

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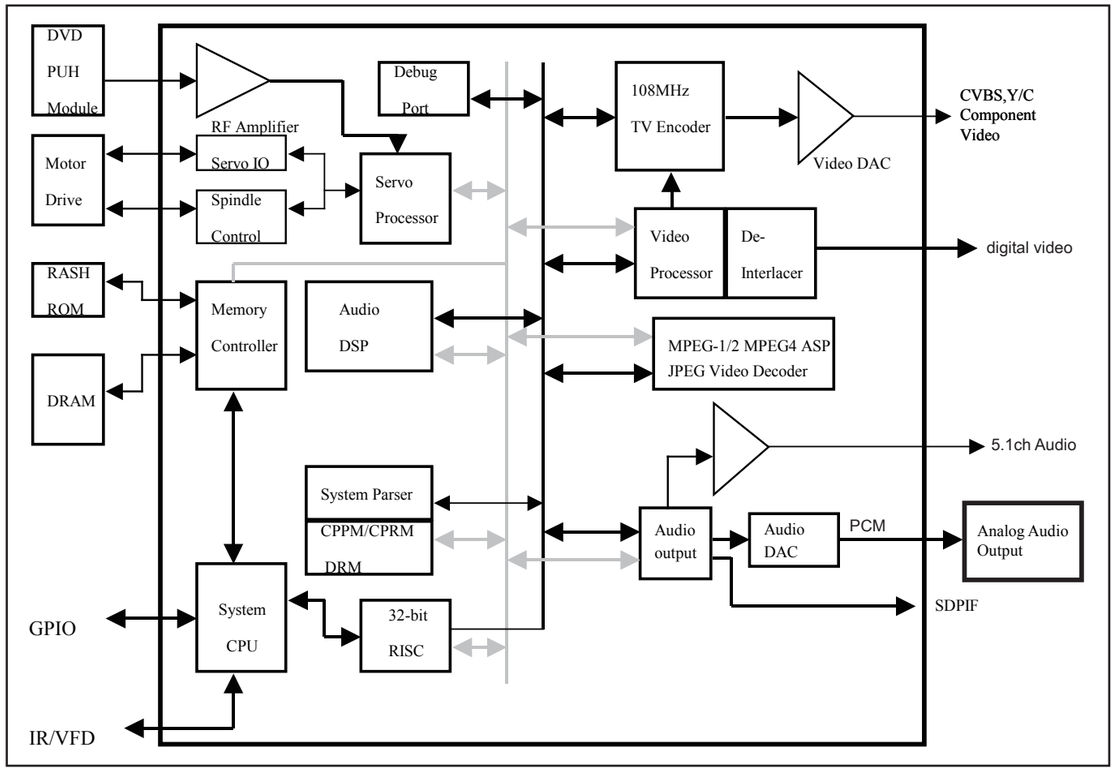
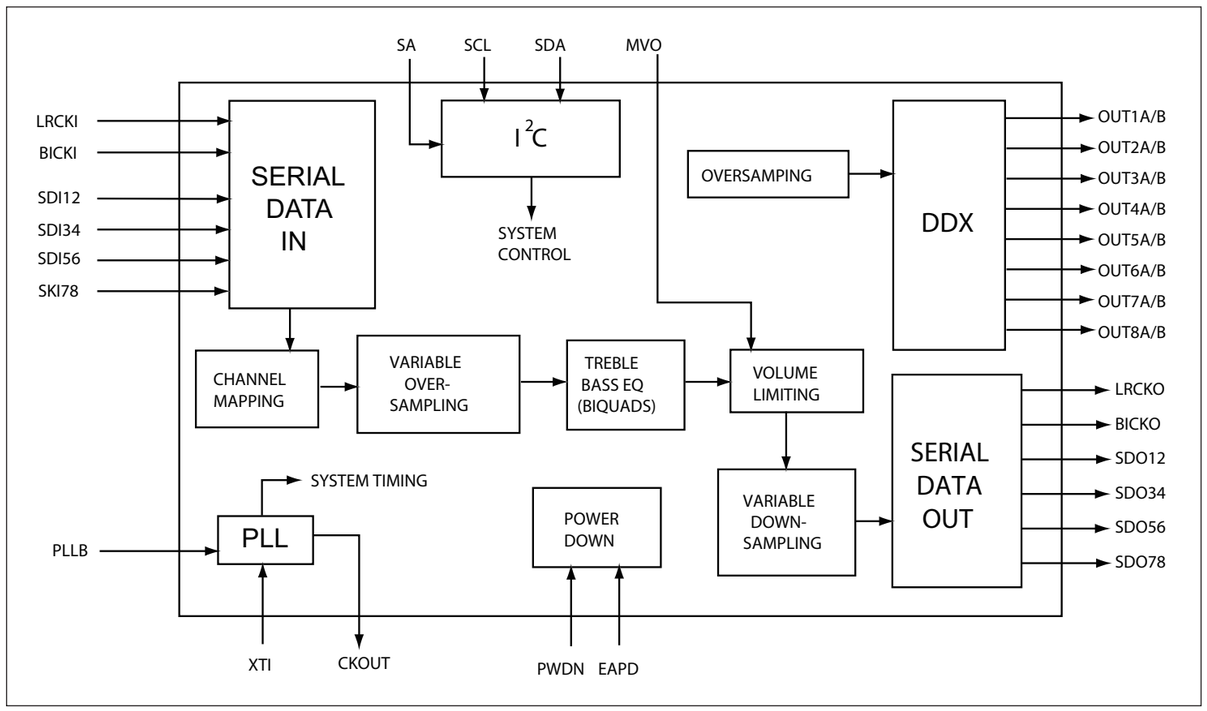
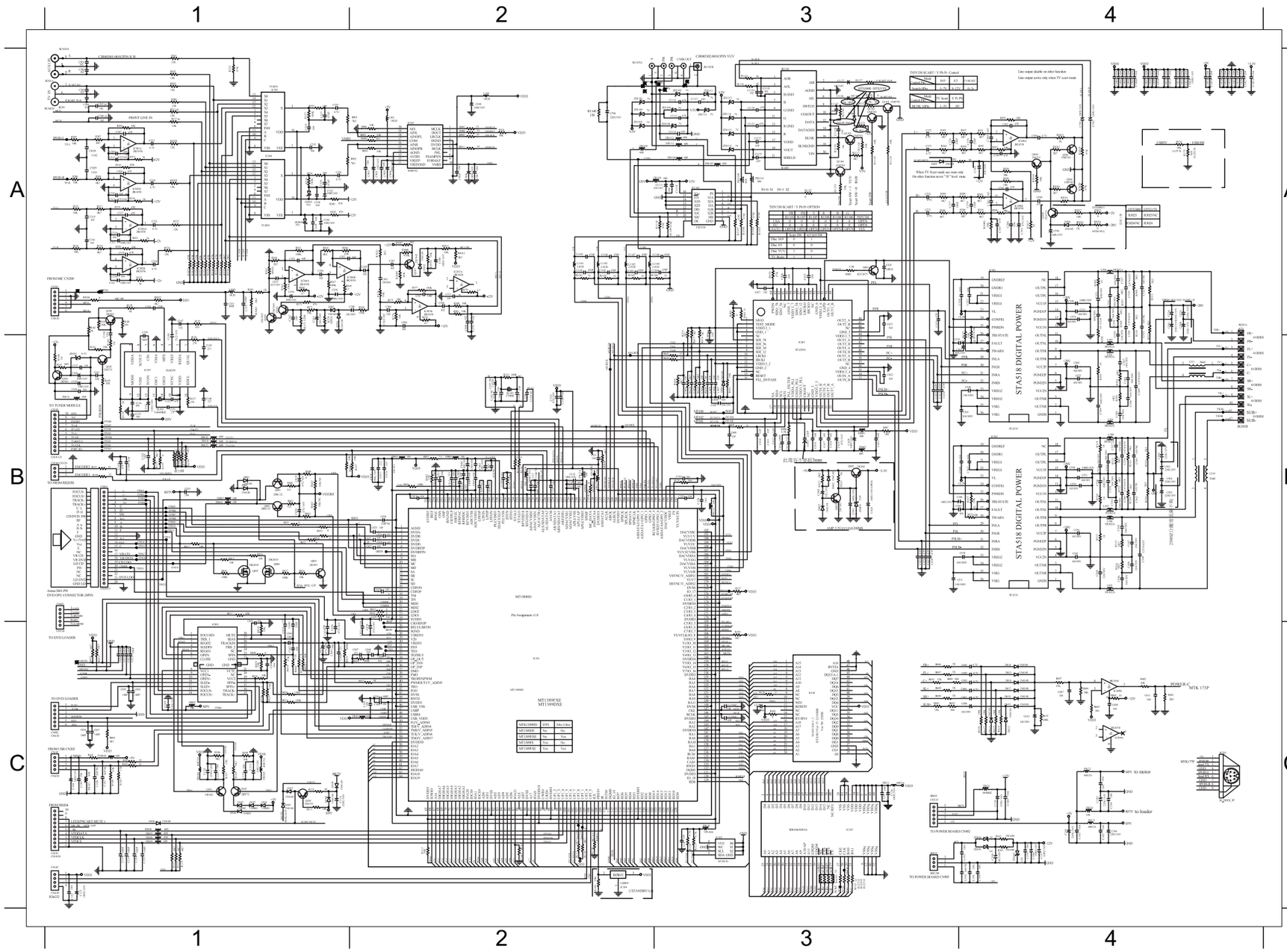
INTERNAL IC DIAGRAM - MT1389HD



INTERNAL IC DIAGRAM - STA308A



CIRCUIT DIAGRAM - part one



C1001	A4	C182	C4	C421	B3	C801	B2	D614	C4
C1002	A4	C183	C4	C422	B3	C802	B2	D615	C4
C1003	A4	C184	C4	C423	A3	C803	B2	D616	C4
C1004	A4	C185	C4	C425	A3	C804	B2	D617	C4
C1005	A4	C186	C4	C426	A3	C805	B2	D618	C4
C1006	A4	C188	C4	C427	A3	C806	B2	D619	C4
C1007	A4	C189	C1	C431	A3	C807	B2	D801	B1
C1008	A4	C190	C4	C432	B3	C808	B2	D802	B1
C1009	A4	C191	C4	C433	B3	C809	B2	FB101	C2
C101	C2	C193	C4	C434	B3	C810	B2	FB104	C1
C1010	A4	C194	C4	C435	B3	C811	B2	FB105	C1
C1011	A4	C195	C4	C436	B3	C812	B2	FB106	C1
C1012	A4	C196	C4	C437	B3	C813	B2	FB107	C1
C1013	A4	C197	C4	C438	B3	C814	B2	FB108	C1
C1015	A4	C301	A1	C439	B3	C815	B2	FB109	C1
C1016	A4	C302	A1	C440	B3	C816	B2	FB110	C3
C1017	A4	C303	A1	C441	B3	C817	B2	FB1101	A3
C1018	A4	C304	A1	C502	B4	C818	B2	FB1102	A2
C1019	A4	C315	A1	C504	B4	C819	B1	FB111	C3
C102	A1	C316	A1	C505	B4	C820	B1	FB1111	A3
C1020	A4	C317	A1	C506	B4	C823	B2	FB1112	A3
C1021	A4	C318	A1	C507	B4	C824	B2	FB112	B3
C1022	A4	C319	A1	C508	B4	C825	B2	FB113	B2
C1023	A4	C320	A1	C509	B4	C826	B2	FB114	B2
C1024	A4	C321	A1	C520	A4	C827	B2	FB115	B2
C1025	A4	C322	A1	C521	A4	C828	B2	FB116	B1
C1026	A4	C323	A1	C523	A4	C829	B2	FB121	C4
C1027	A4	C324	A1	C524	A4	C830	C2	FB122	C4
C103	C2	C325	A1	C525	A4	C831	C2	FB123	C4
C110	C1	C326	A1	C526	A4	C833	B1	FB124	C4
C1101	A2	C327	A1	C527	A4	C835	C1	FB125	B1
C1102	A2	C328	A1	C528	A4	C836	C1	FB126	B1
C1103	A2	C329	A1	C529	A4	C838	C1	FB127	B1
C1104	A2	C330	A1	C530	A4	C839	C1	FB401	B3
C1105	A2	C332	A1	C533	A4	C840	C1	FB402	B3
C1106	A2	C334	A1	C534	A4	C841	C1	FB801	B2
C1107	A2	C335	A1	C537	A4	C842	C1	FB802	B2
C1108	A2	C336	A1	C538	A4	C843	C1	FB803	B1
C111	C1	C348	A2	C539	B3	C844	C1	FB804	B1
C1110	A3	C351	A1	C540	B4	C845	C1	FB805	C1
C1111	A3	C352	A1	C541	B4	C846	C1	IC101	C2
C1112	A3	C353	A1	C542	B4	C847	C2	IC102	C3
C1113	A3	C354	A1	C544	B4	C848	C2	IC103	C3
C1114	A3	C355	A1	C545	B4	C849	C2	IC104	C2
C1117	A3	C356	A1	C546	B4	C850	C1	IC105	C3
C112	C1	C357	A1	C547	B4	C851	C1	IC302	A1
C113	C1	C358	A1	C548	B4	C852	C1	IC303	A1
C114	C1	C359	A2	C549	B4	C853	C1	IC304	A1
C118	C1	C360	A2	C550	B4	C854	C1	IC305	A2
C119	C1	C361	A1	C551	B4	C855	C1	IC306	A1
C120	C1	C362	A1	C553	B4	C856	C1	IC307	A2
C121	C1	C363	A2	C554	B4	C857	C1	IC309	C4
C122	C1	C364	A2	C555	B4	C901	A2	IC401	B3
C123	C1	C365	A2	C556	B4	C902	A2	IC501	A4
C124	C3	C366	A2	C557	B4	C903	A2	IC502	B4
C125	C3	C367	A2	C558	B4	C904	A2	IC801	C1
C126	C3	C368	A2	C559	B4	C905	A2	JK1103	AA2
C127	C3	C369	A2	C560	B4	C906	A2	JK301	A1
C128	B3	C370	A2	C563	B4	C907	A2	JK501	A4
C129	B3	C371	A2	C564	B4	CN101	C1	JK501	AA4
C130	B3	C387	A2	C567	B4	CN103	B1	L1101	A2
C131	B2	C388	A2	C568	B4	CN104	B1	L1102	A2
C132	B2	C396	B4	C569	B4	CN105	C1	L1103	A2
C133	B2	C397	B3	C570	B4	CN301	A1	L1104	A2
C134	B2	C401	A3	C571	B4	CN801	B1	L3001	A1
C135	B2	C402	B3	C572	B4	CN802	C1	L302	A2
C136	B2	C403	B3	C574	A4	CN803	B1	L308	A2
C137	B2	C404	B3	C576	B4	D101	C1	L501	B4
C139	B2	C405	B3	C578	B4	D102	C1	L502	B4
C140	B2	C406	B3	C580	A4	D103	C1	L503	B4
C142	B2	C407	B3	C581	A4	D104	C1	L504	A4
C143	B2	C408	B3	C582	B4	D105	C1	L505	B4
C144	B2	C409	B3	C583	B4	D106	C1	L506	B4
C154	B1	C410	B3	C601	C4	D107	C1	L507	B4
C157	B1	C411	B3	C602	C4	D108	C1	L508	B4
C158	B1	C412	B3	C603	C4	D109	C1	L511	B4
C159	B1	C413	B3	C604	C4	D301	A1	L514	B4
C160	B1	C414	B3	C605	C4	D302	A1	Q101	C1
C162	B1	C415	B3	C606	C4	D303	A2	Q102	C1
C165	B1	C416	B3	C607	C4	D401	B3	Q103	C1
C166	B1	C417	B3	C608	C4	D402	B3	Q104	B1
C179	C4	C418	B3	C610	C4	D403	B3	Q302	A1
C180	C4	C419	B3	C611	C4	D612	C4	Q303	A1
C181	C4	C420	B3	C706	A2	D613	C4	Q307	A2

Q401	A3	R325	A1	R617	C4
Q402	B3	R326	A1	R618	C4
Q403	B3	R328	A1	R619	C4
Q801	B1	R329	A1	R686	C3
Q802	B1	R330	A1	R687	C3
Q803	B1	R332	A1	R688	C3
Q804	B1	R333	A1	R689	C3
Q805	B1	R334	A1	R690	C3
R106	C1	R335	A1	R691	C3
R107	C1	R336	A1	R692	C3
R108	C1	R337	A1	R693	C3
R109	C1	R338	A1	R801	B2
R110	C1	R340	A1	R802	B2
R1101	A2	R342	A1	R803	B2
R1102	A2	R359	A1	R804	C1
R1103	A2	R360	A1	R806	B1
R1104	A2	R362	A1	R807	B1
R1105	A3	R363	A1	R808	B2
R1107	A3	R364	A1	R812	B1
R1140	A2	R371	A1	R818	C1
R112	C3	R367	A1	R815	B2
R113	C1	R368	A1	R816	B2
R114	C1	R369	A2	R817	B1
R115	C2	R372	A1	R819	C1
R117	C2	R373	A1	R820	C1
R118	C2	R374	A2	R821	C1
R119	C1	R375	A2	R822	C1
R120	C3	R376	A2	R823	C1
R121	C3	R377	A2	R824	C2
R122	C3	R378	A2	R825	C1
R123	C3	R379	A2	R826	C1
R124	C3	R380	A2	R828	C1
R125	C3	R381	A2	R830	C1
R126	C3	R401	A3	R831	C1
R127	B3	R402	A3	R832	C1
R128	B3	R403	B3	R833	C1
R129	B2	R404	B3	R836	B1
R130	B2	R405	B3	R837	B1
R131	B2	R406	B3	R838	B1
R133	B2	R407	B3	R840	B1
R134	B2	R408	A3	R841	B1
R146	B1	R410	A3	R844	C1
R147	B1	R416	B3	R851	B1
R151	B1	R418	B3	R852	B1
R152	B1	R419	B3	R853	B1
R153	B1	R421	B3	R854	B1
R155	B1	R422	B3	R901	A2
R156	B1	R423	B3	R902	A2
R157	B1	R501	B4	R903	A2
R158	B1	R502	B4	R904	A2
R159	C3	R503	B4	R905	A2
R160	C3	R505	A4	R906	A2
R162	C4	R506	A4	R907	A2
R163	C4	R507	A4	R908	A2
R166	B2	R508	A4	R909	A2
R167	B2	R509	A4	R910	A2
R182	C2	R510	A4	R911	A2
R183	C2	R511	A4	RA101	C3
R3003	A1	R512	A4	RB101	C3
R3007	A2	R514	A4	RB102	C3
R3008	A2	R515	B4	XL101	B2
R3009	A2	R516	B4	ZD101	B1
R301	A1	R517	B4	ZD102	C4
R3010	A2	R519	B4	ZD104	C4
R3011	A2	R520	B4	ZD105	C4
R3012	A2	R521	B4	ZD1101	A2
R302	A1	R522	B4	ZD1102	A3
R3021	A2	R523	B4	ZD1103	A2
R3026	A1	R524	B4	ZD1104	A3
R3027	A1	R525	B4	ZD1105	A2
R303	A1	R526	A4	ZD1106	A3
R304	A1	R527	B4	ZD1111	A3
R315	A1	R532	A4	ZD1112	A3
R316	A1	R533	B4	ZD303	A1
R317	A1	R601	C4	ZD304	A1
R318	A1	R602	C4	ZD401	B3
R319	A1	R603	C4		
R320	A1	R605	C4		
R321	A1	R606	C4		
R322	A1	R607	C4		
R323	A1	R614	C4		
R324	A1	R615	C4		

6 - 3

PCB LAYOUT - TOP VIEW

C1011 C4 C159 B1 C332 A2 C367 C4 C439 B3 C538 C5 C571 C4 C816 C1 C845 C2 D104 C3 FB1101 A1 FB802 C3 JK1103 AA3 L511 A4 R108 C2 R147 B1 R302 A3 R335 A3 R374 C4 R419 B3 R533 C4 R826 C2 R907 A3 ZD401 C3
C1019 C1 C165 C3 C334 A3 C396 C4 C440 C3 C539 C5 C572 B5 C818 C1 C846 C2 D105 B3 FB1102 A2 FB803 C1 JK301 A3 L514 A4 R109 C3 R151 A1 R3021 C4 R336 A3 R375 C4 R421 B3 R801 B1 R828 C2 R908 B3
C1020 C5 C166 C3 C335 A3 C397 C5 C441 B3 C540 C5 C574 B5 C819 C1 C901 A3 D106 C3 FB111 B2 FB804 C1 JK501 A3 Q101 A3 R110 C3 R152 A1 R303 A3 R337 A3 R376 C4 R422 C3 R802 B1 R830 C2 R909 B3
C1024 B2 C179 C3 C336 A2 C402 B3 C502 B5 C541 C5 C576 B4 C820 C1 C903 A3 D107 B3 FB1111 A1 FB805 C2 JK501 AA4 Q102 C3 R1105 A1 R153 B1 R304 A3 R338 A3 R377 C4 R423 C3 R804 B2 R831 C2 R910 B3
C110 C3 C181 C3 C348 A3 C405 B3 C504 B5 C542 B4 C578 B4 C823 C1 C904 A3 D108 B3 FB1112 A2 IC101 B1 L1101 A1 Q103 B3 R1107 A1 R155 A1 R315 A1 R340 A2 R378 C4 R503 B4 R806 C1 R836 C1 R911 A3
C1111 A1 C184 B3 C352 C5 C406 B3 C505 B5 C544 B4 C580 A4 C824 C1 C905 A3 D109 C3 FB112 B1 IC102 B2 L1102 A1 Q104 B1 R111 B3 R156 A1 R316 A1 R342 A2 R379 C4 R505 B4 R807 C1 R837 C1 RA101 B2
C113 C3 C185 C1 C353 C4 C409 B3 C506 B5 C549 A4 C581 A4 C825 C1 C906 A3 D301 C5 FB114 B1 IC103 B2 L1103 A1 Q302 C5 R1110 A1 R157 C3 R317 A1 R359 C5 R380 A3 R506 B4 R808 B1 R838 C1 RB101 C3
C114 B5 C189 C2 C354 C4 C410 B3 C509 B5 C550 B4 C582 A4 C826 C1 C907 A3 D302 C5 FB115 C1 IC104 B3 L1104 A1 Q303 C5 R115 B2 R158 C3 R318 A1 R360 C4 R381 A3 R507 B5 R812 C1 R840 C1 RB102 C5
C123 B2 C190 C4 C355 C4 C413 B3 C520 A4 C551 B4 C583 A4 C827 C1 CN101 C3 D401 B3 FB116 B1 IC105 B3 L3001 C5 Q307 C4 R120 B2 R162 C3 R319 A1 R362 C4 R401 B3 R509 B5 R813 C1 R841 C1 XL101 B1
C124 B2 C315 A1 C356 C4 C414 B3 C521 B5 C553 C4 C606 A4 C828 C1 CN103 A1 D402 C3 FB121 C3 IC302 A1 L302 A3 Q401 B3 R121 B2 R163 C3 R320 A1 R363 C4 R402 B3 R510 A4 R814 C1 R851 C1 ZD101 B1
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C129 B1 C318 A1 C359 C5 C417 B4 C525 B5 C560 A4 C802 C1 C836 C2 CN301 C5 FB104 C2 FB124 C3 IC305 A3 L502 B5 Q801 C1 R126 B2 R183 B3 R324 A3 R366 C4 R405 B3 R514 C5 R817 C2 R854 C1 ZD105 C4
C130 B1 C321 A1 C360 C5 C418 B4 C527 B5 C563 A4 C804 C1 C838 C2 CN801 C2 FB105 C2 FB125 A1 IC306 C4 L503 B5 Q802 C1 R128 B1 R3003 C5 R325 A3 R367 C4 R406 B4 R517 B4 R818 C2 R901 B3 ZD1101 A2
C132 B1 C322 A1 C361 C5 C419 B3 C529 B5 C564 A4 C805 B1 C839 C2 CN802 C2 FB106 C2 FB126 A1 IC307 C4 L504 B5 Q803 C1 R129 B1 R3007 C4 R326 A3 R368 C4 R407 B3 R519 B4 R819 C2 R902 B3 ZD1103 A2
C137 B1 C325 A3 C362 C5 C420 B3 C530 B5 C567 C4 C806 B1 C840 C2 CN803 C2 FB107 C2 FB127 A1 IC401 B3 L505 B4 Q804 C1 R130 B1 R3008 C4 R328 A3 R369 C5 R408 B3 R520 B4 R820 C2 R903 A3 ZD1105 A2
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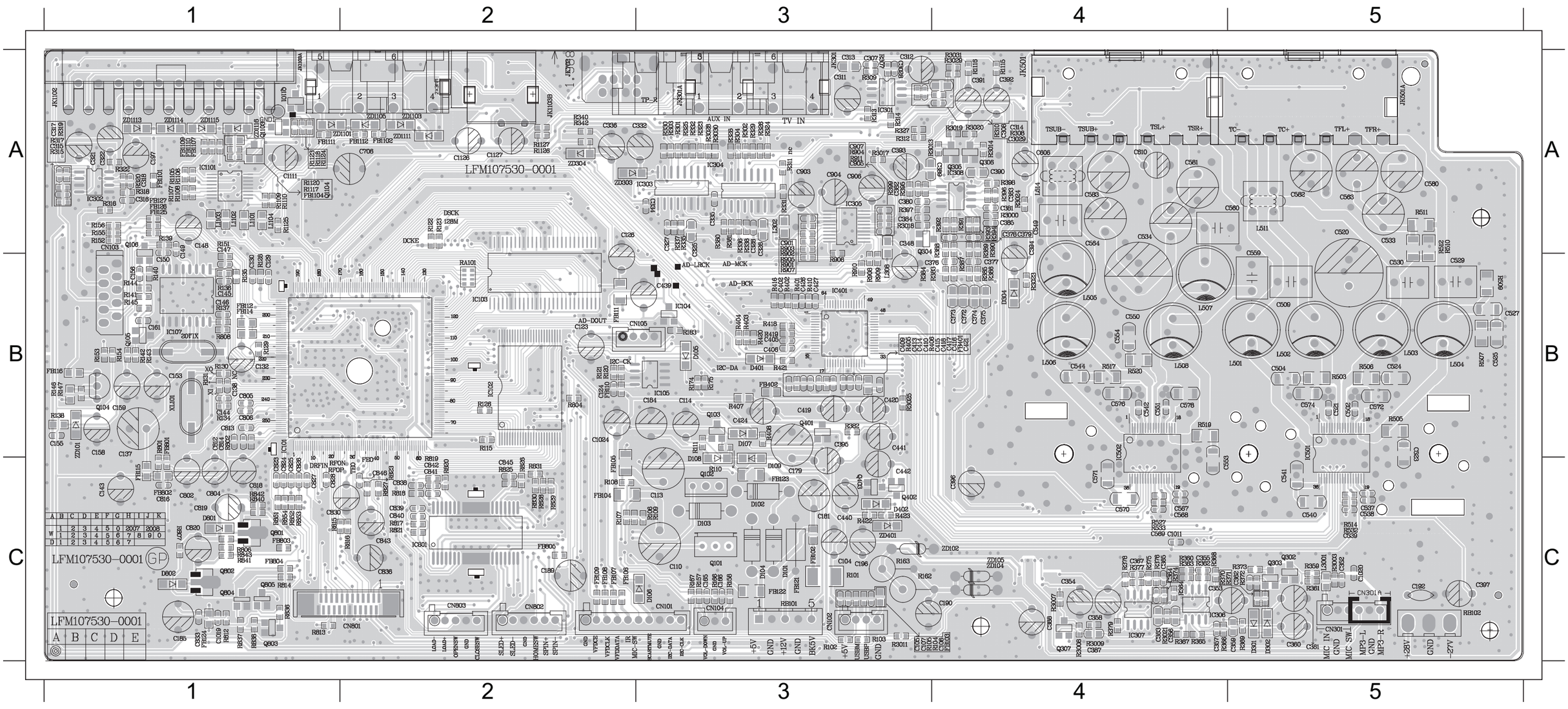
C144 B1 C327 A3 C364 C4 C426 B3 C534 A4 C569 C4 C813 B1 C842 C2 D102 C3 FB109 C2 FB402 B3 IC502 B4 L507 B4 R106 C3 R134 B1 R301 A3 R330 A3 R372 C5 R416 B3 R527 C4 R823 C2 R905 B3 ZD303 A2
C158 B1 C328 A3 C365 C4 C427 B3 C537 C5 C570 C4 C814 B1 C843 C2 D103 C3 FB110 B2 FB801 B1 IC801 C2 L508 B4 R107 C2 R146 B1 R3011 C3 R332 A3 R373 C5 R418 B3 R532 C5 R825 C2 R906 B3 ZD304 A2



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PCB LAYOUT - BOTTOM VIEW

C1001B4 C1010B3 C1023A4 C1106A5 C118 C3 C135 B5 C182 C3 C303 A3 C368 A2 C408 B4 C435 C2 C545 B2 C603 A1 C809 B5 C848 B4 C902 A3 D619 A2 R114 C4 R160 B4 R502 B1 R601 A2 R619 A2 R822 C4
C1002B4 C1012B4 C1025A2 C1107A5 C119 C4 C136 B5 C183 B3 C304 A3 C369 A3 C411 B3 C436 C2 C546 A2 C604 A2 C810 B5 C849 C4 D303 C2 FB101B4 R1140A4 R182 B4 R508 A1 R602 A2 R686 A1 R824 C4
C1003B4 C1013B4 C1026A4 C1108A5 C120 C4 C139 B5 C186 C5 C319 A5 C370 A3 C412 B3 C437 C2 C547 B2 C605 A2 C811 B5 C850 C4 D403 C2 FB113B5 R117 B4 R3010C2 R515 B2 R603 A2 R687 A1 R832 C4
C1004B5 C1015B5 C1027A2 C111 C3 C121 C4 C140 B5 C188 C3 C320 A5 C371 A2 C422 B3 C438 C2 C548 B2 C607 A2 C815 C5 C851 C4 D612 A2 IC309 A2 R118 B4 R3012B4 R516 B2 R605 A2 R688 A1 R833 C4
C1005B4 C1016B4 C103 C4 C1110A5 C122 B4 C142 C5 C191 C2 C323 A3 C387 C4 C423 B3 C505 B1 C555 B2 C608 A2 C817 C5 C852 C4 D613 A1 R1101A5 R119 B4 R3026C1 R521 B2 R606 A2 R689 A2 R844 C4
C1006B4 C1017B4 C1101A5 C1112A4 C125 B4 C154 B5 C193 B1 C324 A3 C388 C4 C425 B3 C506 A1 C556 A2 C611 A2 C829 C4 C853 C4 D614 A1 R1102A5 R124 B4 R3027C3 R522 A2 R607 A2 R690 A2 ZD1102A5
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C1008B4 C102 C4 C1103A5 C1114A4 C131 B5 C160 B5 C195 C3 C330 A3 C403 B3 C432 C1 C508 B1 C558 A2 C803 C5 C835 C4 C855 C4 D616 A1 R1104A5 R127 B5 R333 A3 R524 B2 R615 A2 R692 A1 ZD1106A4
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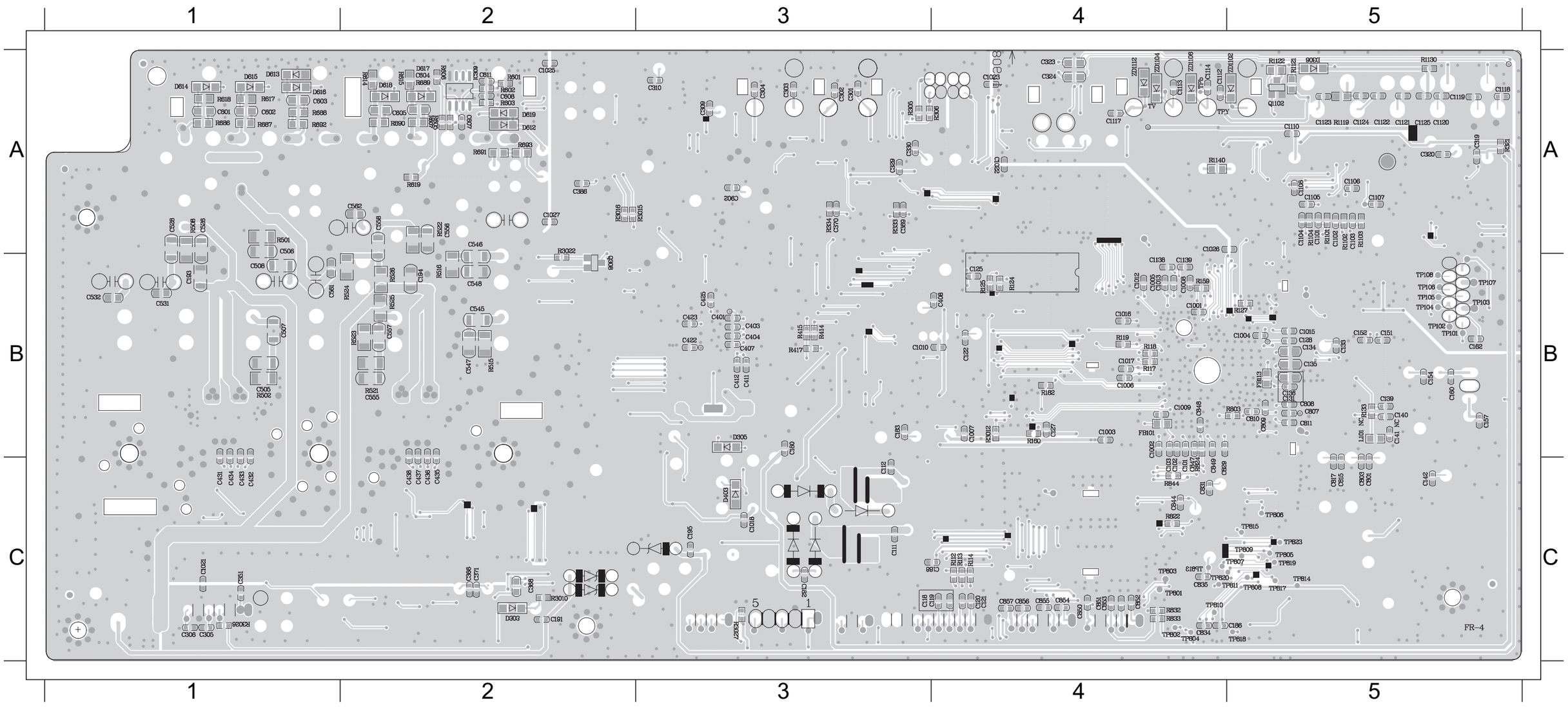
C101 C4 C1022A4 C1105A5 C112 C3 C134 B5 C180 B3 C302 A3 C366 A2 C407 B3 C434 C1 C528 A1 C602 A1 C808 B5 C847 C4 C857 C4 D618 A2 R113 C4 R159 B4 R501 A1 R526 B2 R618 A1 R803 B5



POWER BOARD

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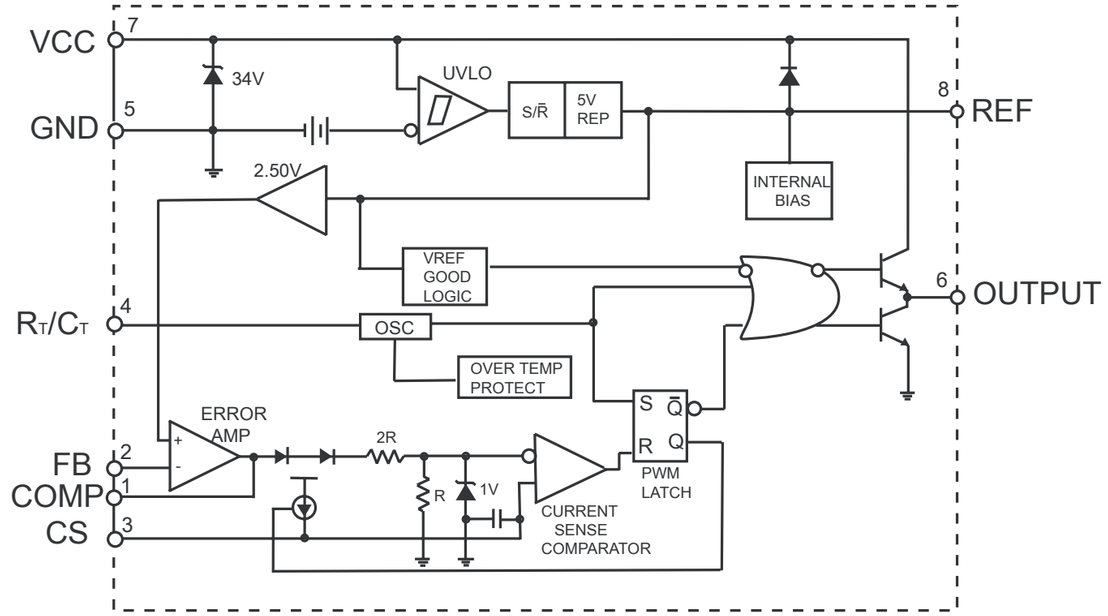
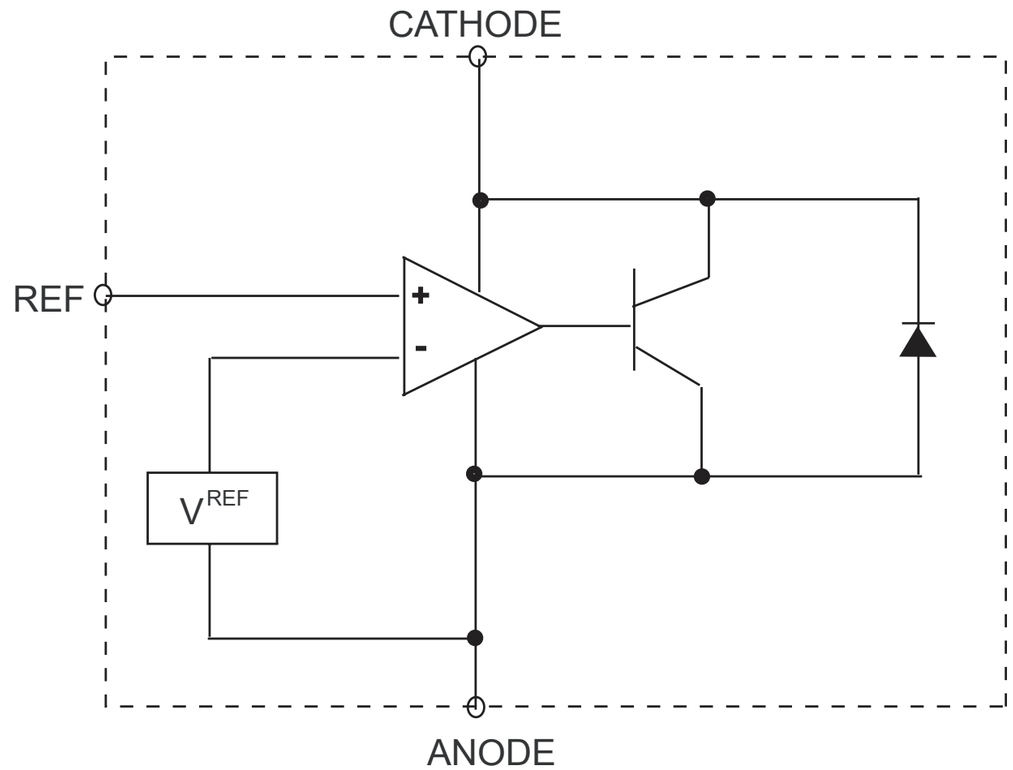
INTERNAL IC DIAGRAM - AP3843GMTR

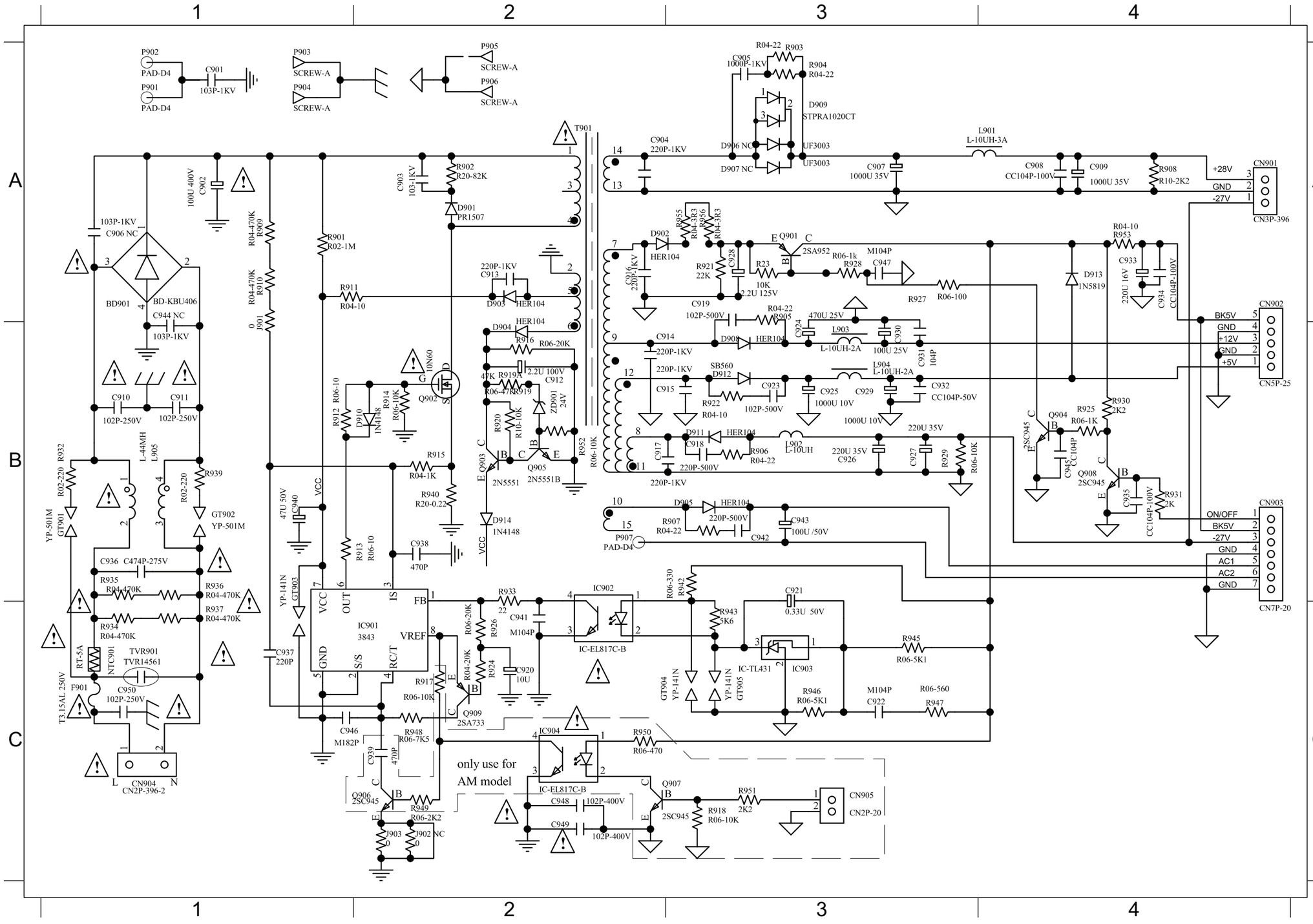


INTERNAL IC DIAGRAM - AZ431



7 - 2

CIRCUIT DIAGRAM

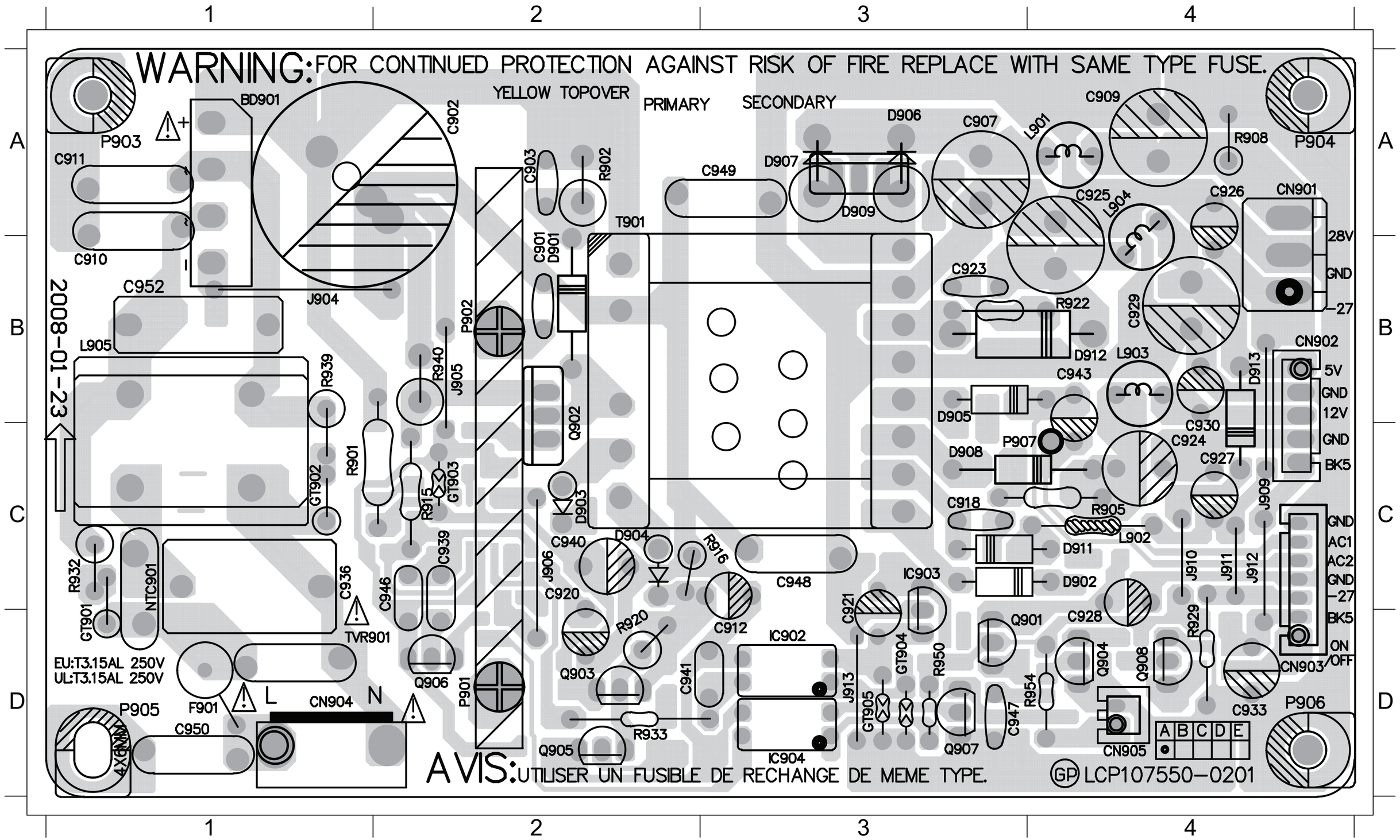


BD901	A1	D911	B3	R935	B1
C901	A1	D912	B3	R936	B1
C902	A1	D913	A4	R937	C1
C903	A2	D914	B2	R939	B1
C904	A2	F901	C1	R940	B2
C905	A3	GT901	B1	R941	B2
C907	A3	GT902	B1	R942	B3
C908	A4	GT903	B1	R943	C3
C909	A4	IC901	C2	R945	C3
C910	B1	IC902	B2	R946	C3
C911	B1	IC903	C3	R947	C3
C912	B2	IC904	C2	R948	C2
C913	A2	L901	A3	R949	C2
C914	B2	L902	B3	R950	C2
C915	B2	L903	B3	R951	C3
C916	A2	L904	B3	R952	B2
C917	B2	L905	B1	R953	A4
C918	B3	NTC901	C1	R955	A3
C919	A3	Q901	A3	R956	A3
C920	C2	Q902	B2	T901	A2
C921	B3	Q903	B2	TVR901	C1
C922	C3	Q904	B4	ZD901	B2
C923	B3	Q905	B2		
C924	B3	Q906	C2		
C925	B3	Q907	C2		
C926	B3	Q908	B4		
C927	B3	Q909	C2		
C928	A3	R901	A1		
C929	B3	R902	A2		
C930	B3	R903	A3		
C931	B3	R904	A3		
C932	B3	R905	A3		
C933	A4	R906	B3		
C934	A4	R907	B3		
C935	B4	R908	A4		
C936	B1	R909	A1		
C937	C1	R910	A1		
C938	B2	R911	A1		
C939	C2	R912	B1		
C940	B1	R913	B2		
C941	C2	R914	B2		
C942	B3	R915	B2		
C943	B3	R916	B2		
C945	B4	R917	C2		
C946	C1	R918	C3		
C947	A3	R919	B2		
C948	C2	R920	B2		
C949	C2	R921	A3		
CN901	A4	R922	B3		
CN902	A4	R923	A3		
CN903	B4	R924	C2		
CN904	C1	R925	B4		
CN905	C3	R926	C2		
D901	A2	R927	A3		
D902	A2	R928	A3		
D903	A2	R929	B3		
D904	B2	R930	B4		
D905	B3	R931	B4		
D908	B3	R932	B1		
D909	A3	R933	C2		
D910	B2	R934	C1		

7 - 3

PCB LAYOUT - TOP VIEW

BD901	A1	C907	A3	C912	D3	C923	B3	C927	C4	C933	D4	C941	D2	C948	C3	CN903	D3	D902	C4	D908	C3	D913	B4	GT903	C2	J904	B1	J910	C4	L901	A4	L905	B1	Q903	D2	Q907	D3	R905	C4	R920	D2	R933	D2	T901	A2
C901	B2	C909	A4	C918	C3	C924	C4	C928	D4	C936	C1	C943	B4	C949	A3	CN904	D1	D903	C2	D909	A3	F901	D1	IC902	D3	J905	B2	J911	C4	L902	C4	NTC901	C1	Q904	D4	Q908	D4	R908	A4	R922	B4	R939	B1	TVR901	D1
C902	A2	C910	B1	C920	C2	C925	A4	C929	B4	C939	C2	C946	C2	CN901	A4	CN905	D4	D904	C2	D911	C4	GT901	C1	IC903	C3	J906	C2	J912	C4	L903	B4	Q901	D3	Q905	D2	R901	C1	R915	C2	R929	D4	R940	B2		
C903	A2	C911	A1	C921	C3	C926	A4	C930	B4	C940	C2	C947	D3	CN902	B4	D901	B2	D905	B3	D912	B4	GT902	C1	IC904	D3	J909	C4	J913	D3	L904	A4	Q902	B2	Q906	D2	R902	A2	R916	C3	R932	C1	R950	D3		



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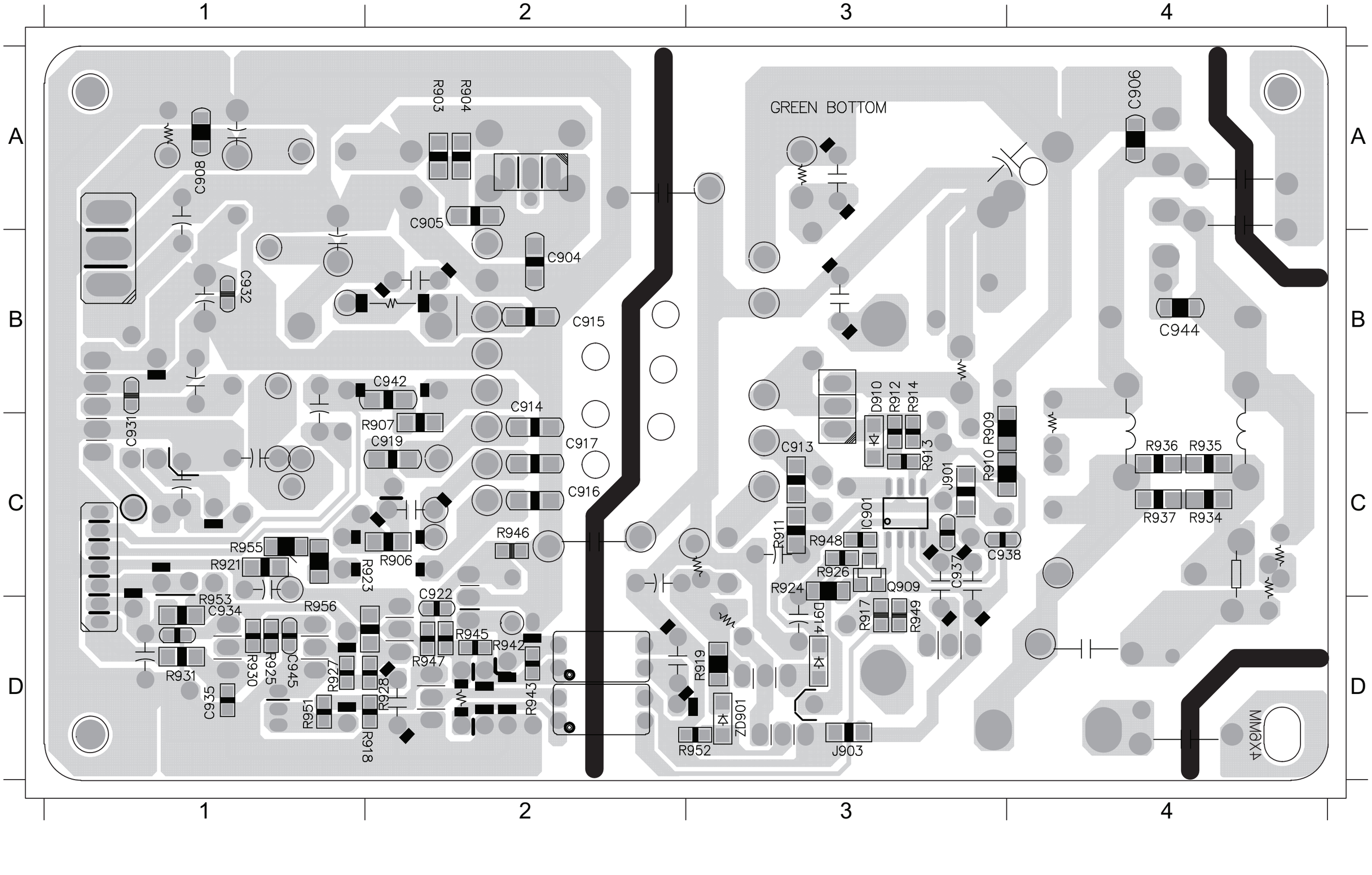
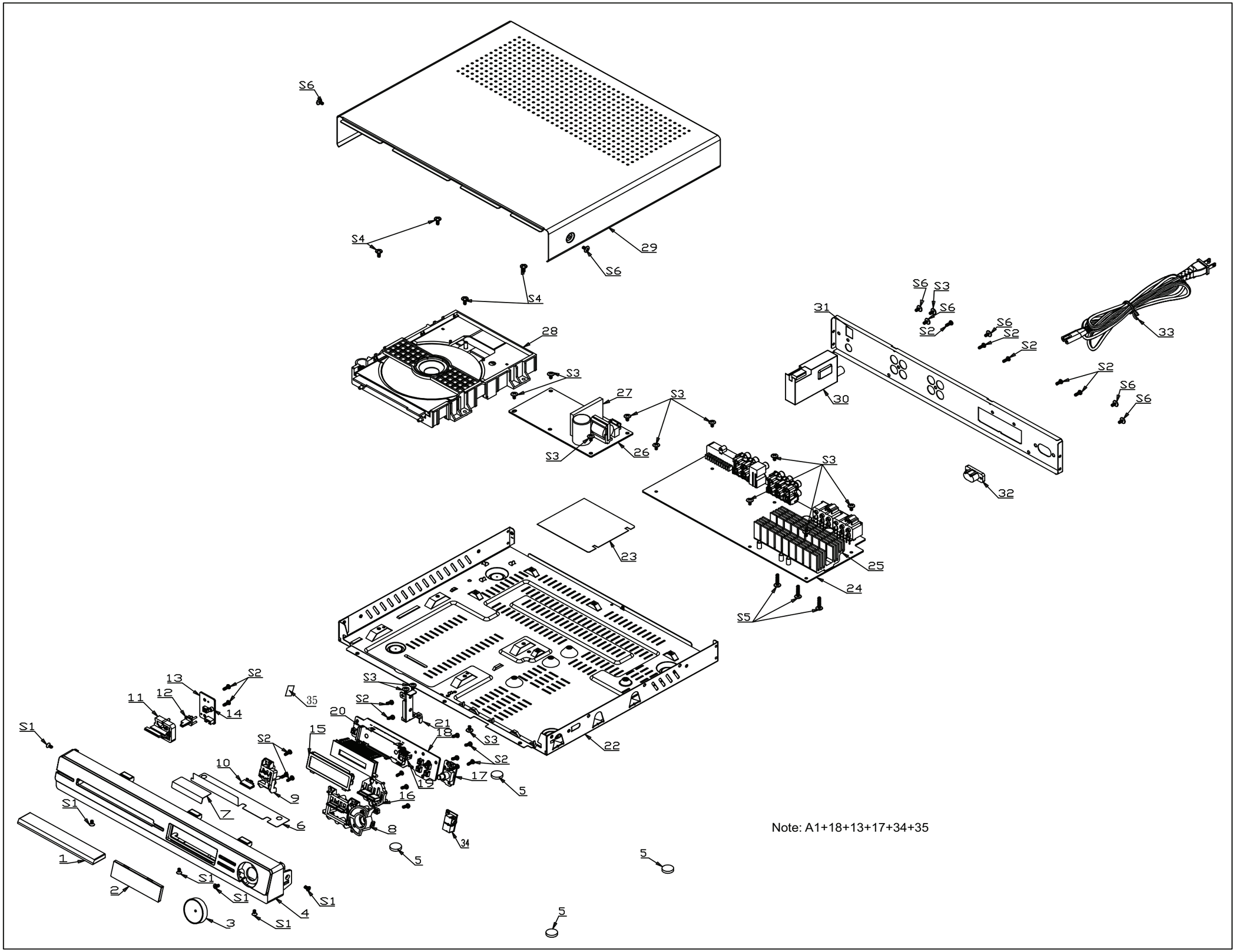
PCB LAYOUT - BOTTOM VIEW

C904 B2 C913 C3 C916 C2 C922 C2 C934 D1 C938 C3 D910 B3 J901 C3 R903 A2 R907 C1 R911 C3 R914 B3 R919 D3 R924 C3 R927 D1 R931 D1 R936 C4 R943 D2 R947 D2 R951 D1 R955 C1
C905 A2 C914 B2 C917 C2 C931 C1 C935 D1 C942 B2 D914 D3 J903 D3 R904 A2 R909 C3 R912 B3 R917 D3 R921 C1 R925 D1 R928 D2 R934 C4 R937 C4 R945 D2 R948 C3 R952 D2 R956 D1
C908 A1 C915 B2 C919 C2 C932 B1 C937 C3 C945 D1 IC901 C3 Q909 C3 R906 C2 R910 C3 R913 C3 R918 D1 R923 C1 R926 C3 R930 D1 R935 C4 R942 D2 R946 C2 R949 D3 R953 D1 ZD901 D3



8 - 1

Mechanical Exploded View



MECHANICAL PART LIST

Loc.	Part No.	Description
MAIN		
1	996510012023	DVD DOOR HIPS
2	996510001640	DISPLAY LENS
3	996510012024	VOL KNOB
4	996510012532	FRONT CABINET
5	994000005305	RUBBER FOOT
8	996510012026	FUN BUTTON BASE ABS
9	996510001644	EJECT BUTTON BASE
10	996510012027	EJECT BUTTON ABS
11	996510012028	STANDBY BUTTON ABS
12	996510001258	STANDY LED LENS
16	996510012029	FUNCTION BUTTON ABS
22	996510012030	BTM CAB SECC
23	996510012031	PVC SHEET
24	996510018520	MAIN PCB ASSY
26	996510015346	POWER PCB ASSY
28	996510017573	DVD LOADER
29	996510008742	TOP COVER
30	996510001690	TUNER PACK
31	996510012533	REAR PANEL SECC
33	996510001638	POWER CORD
A1	996510015347	VFD+STANDBY+VOL+MP3+BRACKET
AM	996510001621	LOOP ANT
FM	996510008251	FM ANT
RC	996510012534	REMOTE CONTROL
V1	996510007337	FFC CABLE 10P 60MM
VIDEO	996500013058	RCA CABLE 2P 1.2M
SPEAKER		
RFC/FF/FR	996500036131	RUBBER FOOT M/S/C/W
RFS	996500028375	RUBBER FOOT
SPKC	996510018469	SPEAKER BOX -CENTER
SPKFL	996510018470	SPEAKER BOX - FRONT LEFT
SPKFR	996510018471	SPEAKER BOX - FRONT RIGHT
SPKRL	996510018472	SPEAKER BOX - REAR LEFT
SPKRR	996510018473	SPEAKER BOX - REAR RIGHT
SUBW	996510018474	SUBWOOFER
MAIN PCB ASSY		
CN101	996510012539	CONNECTOR 10 PIN PITCH=2.0mm
CN103	996510012497	FPC/FFC CONN. 10P
CN104	996500015900	CONNECTOR 3 PIN P=2.0MM
CN301	996500015900	CONNECTOR 3 PIN P=2.0MM
CN802	996500015901	CONNECTOR 6 PIN P=2.0MM
CN803	996500015895	CONNECTOR 5 PIN P=2.0MM
D101	996510010358	DIODE 1N4007
D102	996510010358	DIODE 1N4007
D103	996510010358	DIODE 1N4007
D104	996510010358	DIODE 1N4007
IC101	996510012540	IC256PMT1389DXE/HDLQFPMEDIATEK
IC102	996510018521	IC48P EN29LV160AB-70TCPTSOPEON
IC103	996510009895	IC 54P A641604L-6T TSOP II
IC104	996500041284	IC 3P STM809SWX6F 3.0V
IC105	996510004289	IC 8P TU24C16CS2 SOIC TURBO
IC302	996500029611	IC 8P CO4558A SO8 CERAMATE LF
IC303	996510012503	IC 16P CD4051BM SOIC TI ANALOG
IC304	996510012503	IC 16P CD4051BM SOIC TI ANALOG
IC305	996510012504	IC 20P WM8782SEDS SSOP WOLFSON
IC306	996500029611	IC 8P CO4558A SO8 CERAMATE LF
IC307	996500029611	IC 8P CO4558A SO8 CERAMATE LF
IC309	996500029611	IC 8P CO4558A SO8 CERAMATE LF
IC401	996510018057	IC 64P DDX-8229 TQFP APOGEE
IC501	996510012541	IC 36P STA518 PSSO ST 40V 3.5A
IC502	996510012541	IC 36P STA518 PSSO ST 40V 3.5A
IC801	996510012506	IC 28P AM5888S L/F HSOP AMTEK
JK1103A	996510012542	RCA JACK4PRED-GRN/YEL-BLUW/GND
JK301	996510004283	RCA JACK 4P AUDIO
JK501&501A	996510013837	GPSPK JAC12P RD-WT-GRN-GRY-BLU
L501	996500016695	30UH 15% 1KHZ 0.25V 2A
L502	996500016695	30UH 15% 1KHZ 0.25V 2A
L503	996500016695	30UH 15% 1KHZ 0.25V 2A
L504	996500016695	30UH 15% 1KHZ 0.25V 2A
L505	996500016695	30UH 15% 1KHZ 0.25V 2A
L506	996500016695	30UH 15% 1KHZ 0.25V 2A
L507	996500016695	30UH 15% 1KHZ 0.25V 2A
L508	996500016695	30UH 15% 1KHZ 0.25V 2A
Q101	996510012508	XISTR PNP TIP42C
Q102	996500026946	XISTR PNP 2SB772P/Q NEC PB<10
Q103	994000000921	XISTR PNP 2SA812 HFE:200-400
Q104	996510000615	XISTR NPN 2SC945P
Q302	994000000915	XISTR NPN 2SC1623
Q303	994000000915	XISTR NPN 2SC1623
Q307	994000000915	XISTR NPN 2SC1623
Q401	996510000578	XISTR NPN KTC3875-Y
Q402	994000000915	XISTR NPN 2SC1623
Q403	994000000915	XISTR NPN 2SC1623
Q801	996500026927	XISTR PNP 2SB1132RT100 ROHM HF
Q802	996500026927	XISTR PNP 2SB1132RT100 ROHM HF
Q803	994000000915	XISTR NPN 2SC1623
Q804	996510004117	FET 2SK3018 30V/0.1A SC-70
Q805	996510004117	FET 2SK3018 30V/0.1A SC-70
R162	996510012544	RES. 560 OHM 2W 5% MO
R163	996510012544	RES. 560 OHM 2W 5% MO
XL101	996510000568	CRYST 27.0000MHZ +/-20PPM
ZD102	996500026940	DIODE ZENR 11.9-12.4V 0.5W
ZD104	996510012545	DIODEZENR 5.3-5.5V 0.5WHITACHI
ZD105	996510012545	DIODEZENR 5.3-5.5V 0.5WHITACHI
POWER PCB ASSY		
BD901	996500041295	BRIDGE RS406 4A 600V UL
C901	996500018042	COND DISC 0.01UF 1KV 20%
C902	996510004296	ELEC 100UF 400V 20% 22x30x10
C903	996500018042	COND DISC 0.01UF 1KV 20%
C910	996500027115	CAP.SAFTY Y1 102PF 250V 20% Y5
C911	996500027115	CAP.SAFTY Y1 102PF 250V 20% Y5
C912	996510012547	CONDELECT 2.2uF 125V 20% 105'C
C918	994000005236	COND DISC 220PF 1KV 10%
C923	996500020261	COND DISC 0.001UF 1KV 20%
C928	996510012511	COND ELECT 2.2 uF 100V
C936	996510012548	GOND SAFETY 0.47uF 275V 10% X2
C939	996500020264	COND DISC 470PF 1KV 10%
C941	996510004633	COND MYLAR 0.1 uF 100V 5%
C946	996510010365	COND MYLAR 0.0018uF 100V 5%
C947	996500020275	COND DISC 0.1UF 100V
C948	996500027115	CAP.SAFTY Y1 102PF 250V 20% Y5
C949	996500027115	CAP.SAFTY Y1 102PF 250V 20% Y5
CN901	996500019399	CONNECTOR 3P CL3962WVO
CN902	996500015863	CONNECTOR B5B-XH-A 5 PIN
CN903	996500017358	CONNECTOR 7P
CN904	996500015936	CONNECTOR 4PIN P=3.96MM
CN905	996500015898	CONNECTOR 2 PIN PITCH=2.0MM
D901	994000000938	DIODE PR1507 1.5A 1000V
D902	994000000941	DIODE HER104 1A 300V 50NS
D903	994000000941	DIODE HER104 1A 300V 50NS
D904	996510012516	DIODEHER105 DO-411A400V50nSFMS
D905	994000000941	DIODE HER104 1A 300V 50NS
D908	994000000941	DIODE HER104 1A 300V 50NS
D909	994000005459	DIODE STPR1020CT
D911	994000000941	DIODE HER104 1A 300V 50NS
D912	996500041297	DIODE SB560 DO-201AD CTC 5A 60
D913	996510004297	IN5819 1A 28V SCHOTTKY
F901	996510004105	FUSE T3.15AL 250V
IC901	996510004113	IC 8P AP3843GMTR-E1
IC902	994000000946	OPTICAL SENSOR 4P
IC903	994000000952	IC 3PIN TL431
IC903	996500029312	IC 3 PIN TL431 TO-92 CHANG JI
IC904	994000000946	OPTICAL SENSOR 4P
L901	996510012550	CHOKECOILS 10UH 10% P=5 CUT4MM
Q901	996510010356	XISTR PNP 2SB647 TO-92MOD
Q902	996500038406	MOSFET STP10NK60Z 10A 600V
Q903	996510004298	XISTR NPN 2N5551B TO-92
Q904	996510000615	XISTR NPN 2SC945P
Q905	996510004298	XISTR NPN 2N5551B TO-92
Q906	996510000615	XISTR NPN 2SC945P
Q907	996510000615	XISTR NPN 2SC945P
Q908	996510000615	XISTR NPN 2SC945P
Q909	994000000921	XISTR PNP 2SA812 HFE:200-400
R920	996510012521	RES 10K OHM 2W 5% STANDARD RAD
R940	996510012551	RES. 0.22 OHM 2W 5% MOF
T901	996510012552	SW TRANS EER28/34S 6+6P 60W
VFD+STANDBY+VOL+MP3+BRACKET		
IC200	994000005266	IC 52P V63111 QFP
Q200	994000000921	XISTR PNP 2SA812 HFE:200-400
SN200	994000005472	IRT RECEIVER IRM-2638AF4
XL200	996510012536	RES CERAMIC 455KHZ ZTB455ET4C
ZD200	996510010364	DIODE ZENER 5.32-5.88V 0.5W
JK1	996510012537	PHONE JACK D3.5 7P LIGHT GREY

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REVISION LIST

Version 1.0
*Initial release